



SEQUENCE LISTING

<110> VLAAMS INTERUNIVERSITAIR INSTITUUT VOOR BIOTECHNOL

<120> Plant stress regulated genes

<130> FVB/Tab/V077

<140> US 10/647,625

<141> 203-08-25

<150> 01200659.9

<151> 2001-02-23

<160> 173

<170> PatentIn Ver. 2.1

<210> 1

<211> 233

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a1-1-14

<220>

<221> misc_feature

<222> (68)..(68)

<223> n can be any nucleotide

<400> 1
gtaacgaggt acagaagcat tggattacaa tggttattcat cacatgatat taaagaggta 60
gggtttantt tggtggacat tgaagctaaa atttctcttt aacacttaat gaaatattta 120
attttagattc aggctcacag acttgacgct gctattttt tactcagtaa gatcatcttt 180
atctgtatgc tgtaccaata ataaaagccc aaacccttt aaccacattc atc 233

<210> 2

<211> 314

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a10-2-12

<220>

<221> misc_feature

<222> (141)..(188)

<223> n can be any nucleotide

<400> 2
aatggaaag gtcaagaaga atgttaatgg ctttcagag accattgagg ttttgagtca 60
gcacgcacaag aaatgttaacc aggtatattag gatggcacga gcagtgtatct tgcggaaagat 120
tgtcagtcaa cccagtagct ngtatcaggg cattggatcg ttctttgatt gacagttagt 180
gtcttgngaa ttttctttt gtttatatac catgtatgtt tgtaaaaagt tggtccaatt 240
atgttctgtt ggatctgttg atttgagatt ttgaccct gcagaaaaatt aagttatagt 300
cctcatttt ttag 314

<210> 3
<211> 286
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a10-4-1

<220>
<223> homology with metallothionein, homeobox gene
induced

<400> 3
ggcagcggct gcggaggatg tggatctac ccagacttgg agaagtccat acctttacca 60
tcgttgatgg tggatccc atgaagat ttgagaaatt tgtagggaaa gcagcagaag 120
gaggaaatgg ctgcaaatgc ggatcaaact gcacctgtga cccttgcaat tgtaagata 180
attctcttgt gattccacaa taatgtgtt gtttctgtataataaggataaaaactaca 240
gctagccatg gaactgattt tcagttttt ggttttttgc ttctgtga 286

<210> 4
<211> 286
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a10-4-12

<220>

<221> misc_feature

<222> (58)..(195)

<223> n can be any nucleotide

<400> 4
gacatcgact gttggagctc aagactttcc tcctgtttca caatatgact ataaatantt 60
gcaacttcag ctgttggagc tcaacatttca caagtgatta ttggcttgc agagaactta 120
atttatttgtt tggacttgg tggcaaaatca tggatgtttca agtagtaatt tgccttgc 180
ctctatgttt tcaantagta atttgccttc gcgagttgat tacatgagaa atcagattct 240
cagtcttgtt gtagtaattt tttgggctgg tgccatcagc caagtgc 286

<210> 5
<211> 278
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a10-4-15

<220>

<221> misc_feature

<222> (64)..(186)

<223> n can be any nucleotide

<400> 5

ctacaaaaga aaggttat tt atacaat atg cattgtaaaa aatcaaccgt taatacaatg 60
ggcngcataa catataat aagat tttga taaccta atg accaacaaca cttatttata 120
taatatgtgg aaaagatgca tccaactatc acagatataa catccaaagg ctatacttaa 180
tttctnctaa ataacaaaaca cacacttaat ccgtcactcc tcgtgtgtac aagcaatagt 240
ccccaaattta gttgtcatcc tctaacattc aatattcc 278

<210> 6
<211> 349
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a14-1-1 ; homology with a serine carboxypeptidase

<220>
<221> misc_feature
<222> (19)..(19)
<223> n can be any nucleotide

<400> 6
gcagaaaat tttggggng gcaccatctg gtttcttca cagtagatgg tgaggagaaa 60
ggaattcaaa agagctatgg acctctgact ttcccaaag tcccattatg caggtcatat 120
gggtccaaatg gaccaaccaa aggccact cgaaatgctc cagaggtgaa ctgctcaagg 180
caaattgtcc taagaagatt atcttgctca catgtgaagc atcaatttaa gaaccacact 240
taactgaaac agattnaaca ttttccagc tttaaaatttc catcaaaaca tagaaaatca 300
tgtagataca tttcacctt tcaggttacc ctgaaatctg tcaatgaaa 349

<210> 7
<211> 367
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a14-1-3

<400> 7
gtggaggaaa ggttcaggga aggttgcgg agtcaatgcc gccgatgccg ggaaagttta 60
cctgagaaaat gaaactgccc gaattttgac ggttggcgac atgaggaacg ttaagtcc 120
gttagagata acggagggtg acgacacgtg gtgggacgcg gacgccgtt caatcgagga 180
gcagtttgac ggttcaaataa aaactagtca aattgaacgaa gtttcaactga ctcggtaat 240
gaatgatcta aaaagggtaa aatcgtaaat gacaaaggcg aaatgtgaag gaacgaacac 300
tcgtccgtgt ttgtctgtaa atataattat ttcaataat tattggaaat gataatttaa 360
tatttg

<210> 8
<211> 389
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a14-1-4

<400> 8
ggaagaagaa agagaaaagg ctgagaaaaga gaaagagaaa gagaaagaag cagctgctga 60
agaagccaaat attactgata aagtgaacga aaatgagaag tcggagagta atattgtcaa 120
ggaaaatcca gagggtaatg gtgttaagga aaatggtaag tcggaaaata atgttgtcaa 180
ggaaaatggt gatgttagta aaggttgatc atgaaatgt tgattaatta ggagttccac 240

ttaaaaactag gatccaataa ttttgaatag ttttgcgtg ttcacattgt tgactttgtt 300
attcaaacta ttccggatgga agtagtggt gtcgcaatt acattttagta ttactacctt 360
cttggaaag taacatttc ataatttag 389

<210> 9
<211> 317
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a18-1-5 ; homology with EREBP-1

<220>
<221> misc_feature
<222> (9)..(309)
<223> n can be any nucleotide

<400> 9
ggacatacna nacggcggag gatgcggcgt tggcgatga caaggcggcg tatcgaattc 60
ggggatcgcg tgcagtgtt aatttcccg tgggggttaa ttccgggtgaa ccggaaaccgg 120
ttcgggttgg ttcaanagg tcgtcaattt cgccggagag ttcttcctcg tcgtcgctgg 180
aaaatatttc gacaaagagg acgaagaagg ttgcccnnct atacagctga gggtaattt 240
gggaatttca aaattgttca attccatgaa caggttgagt tcaatattt atttcatttc 300
ctctccctcnt agaaatt 317

<210> 10
<211> 276
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a18-1-8

<220>
<221> misc_feature
<222> (166)..(264)
<223> n can be any nucleotide

<400> 10
ctgagctagg agagcacaca gggccttagt tcaagtggaa aagggtggaa gacttgttat 60
taagtacgg gttttagcta cgtgccatgc gaattaagct tggatttaa gtggagtagg 120
gttagagggt ggacccattt tccgagtttca gaatgctgca gttgtnccta gacagatttc 180
tcggctctca aaataaaaata aaataaatga gcttggagaa taaactccat ttttgtgaca 240
gtacaatctt ctgcataaac atanctaaa aagtgt 276

<210> 11
<211> 293
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a18-3-2

<220>

<221> misc_feature
<222> (27)..(277)
<223> n can be any nucleotide

<400> 11
gatgtactgt aagccactgc tatggantat gttggaggta ttttatcaac aattggcnaa 60
anatgtatgc tcgattttgt attttgattc ntaaantga taannnnnag ntgaantcga 120
ctgtatTTTg caagngtagt tatATCTTA atcttgTTTC ataaaatgca tggTgtgattg 180
ttatTTTtagt cgatagaaaa aagaaagacc cngtatagtt tgTTgatcg tgctgcagt 240
tttgacagcc aatgctgttt tttaggttac aatatgnagt tgatTTTcta ttg 293

<210> 12
<211> 290
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a18-3-3 ; homology with EIF-5A (initiation factor 5A2)

<400> 12
ttaaagggtgg atttgaggaa ggaaaggatc ttgtgttgc tgtgatgtct gcaatgggtg 60
aagAGCAGAT tgccGCTGTT aaggACATTG gtacCAAGAA ctAGTCGCGC attCTGCAGC 120
atAAATAATT tgCTTtAGCC aagACATTt atATCTTAAT cgtggTactt tgatATCCGT 180
tgattatgaa ctcgacttat atcctattgg catggCTTGA atagttGAAC ttTatGGTTT 240
gtctggtaag acagaACTGG atttgatAGC agaAGTgatt tATATGAATG 290

<210> 13
<211> 260
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a18-4-6

<220>
<221> misc_feature
<222> (36)..(172)
<223> n can be any nucleotide

<400> 13
tGATGATGGC tgggttcact ccATccccaa ttAGTNGNAa cgtntatgan tNGatccaga 60
attttatcaa gcnatatagt gnaaggNaca aagccaaggg gggggcaggt gcaatncatt 120
ttgggtgggg aganaagagn ntgattgttG cttnagCTTg ggaatAGTTA cnaagtatgg 180
ttttCTCATA taaACCCACA atgtgcATCG aatcaacttg tattgacatc tgactttgt 240
ataatattca gtgttatga 260

<210> 14
<211> 269
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a19-3-1

<220>

<221> misc_feature

<222> (222)..(267)

<223> n can be any nucleotide

<400> 14

cgtatagtt tttcgcgac ttgatttagaa gcaaattcagc aatagataag ggacttgtat 60
aaaagatagg tagcaaaaata tactgtcctc ttcgtcctct gcctttttt tcttttaac 120
tttattttt cagccatctc tggtaaaagt tctgatttct ctgggctcag tttgttaat 180
caatataaaat caatataaaaa acagcttgct tttctatgtt tnggttatt tagatatgca 240
aatncttggt agagctgttt ctcttncc 269

<210> 15

<211> 268

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a19-3-3

<400> 15

gagtaaaatt catatttgat aattatacaa ggaatttaca ttcttaaaga agtgattttg 60
atttgagttc caagatttg tgaagttact aaacagattt tgagttccta acttgtgcgc 120
aatgctggat aactcagcca ttttaatatt ctagtactcc attaatttat tgtttcttaa 180
cctatgtgt aattttccct gccgcagcaa cttagtga tttcagagta ttcgtttga 240
tttgctcgaa aattgaaaag gacttgcc 268

<210> 16

<211> 269

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a19-3-4

<220>

<221> misc_feature

<222> (72)..(177)

<223> n can be any nucleotide

<400> 16

caaggcagag agacttgaat aaaggggatc atgaggattt aactttacac ggtaagatgt 60
aaaataacag tnctatcacg gaattactat tcaatcctca aatgataag ttgncaaat 120
aatggggat tataagatnc ctttatctt tgcggaaagg ggtgattttg tatnctnggg 180
atgtgtact gttgaataaa attgtgtaa atccattgtt cataatgtac gaaatttcaa 240
aactattata tatgcggac tttattta 269

<210> 17

<211> 265

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a19-3-9

<220>

<221> misc_feature
<222> (91)..(22)
<223> n can be any nucleotide

<400> 17
aataaaactat gaagtcgaga tatgaatcaa actgaaacct caagtaaaaa tggactcaaa 60
actcagacgc attactaaat ggcgaagtac ntngtgcg caaacaatac aaacaaaacc 120
tattttaca cccattcgac aaatatttca accaaaaaac agaacgtgac cttaaaagtg 180
agacaacttc tgtaaacgtc cacacgcctc aatgatagan taataaagcc aaccaattcc 240
cagttcccat aaccccaacc caacc 265

<210> 18
<211> 359
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a20-1-3

<400> 18
ggaataaaaga ttaacataaa tgtgatcccc gaaaggtaaa tacaaggatg ccaatctcta 60
ctaacatgaa atctctaattc tctatttctc atgtccaacc tcgttaaagca tgaagtccaa 120
ataaggcaag ggaaacattt cattcataga aacatgcaga aaagaattt tccagagtaa 180
taaaaactat taacctaaaaa cgtcataaca aaatgagcct ggaataatac cctacagcag 240
taaaacttaa cgtccaaaaaa cacaacacat aaaactcaac cacatcttgt tctgctggtg 300
gagtaaagta aaaacccaaaaa aactaaaaagg gggggttgag ttaaggggct tcatcatta 359

<210> 19
<211> 399
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a3-2-2 ; homology with L12 (60S) ribosomal protein

<220>

<221> misc_feature
<222> (242)..(242)
<223> n can be any nucleotide

<400> 19
aagaagacca aaaacattaa gcataacggt aacatctcgc tcgatgacgt catcgagatc 60
gctaagggtga tgaagccaag atcgatggcg aaggatttga gtggAACAGT gaaggagatt 120
ttgggcacgt gtgtatcagt tgggtgtacg gtagatggga aggatcctaa ggatttgcag 180
caagagattt atgatggta tgcgagatt cctctcgatt gaatgcgaat tatcaactga 240
tntaatatt atgttaattt tatgttattt tggggaggat atgtcatttt gaggatcatt 300
ttgatataac tatgacattc tggaaattttt tattggaaa tggatgttgg atttgctttt 360
tctcgatgaa gtgttttagc attgttttat gcgtttgc 399

<210> 20
<211> 287
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a8-1-1

<400> 20
gtgcaatttg cagtcaactgg cgccagatcgc agagaacttg gctaaaagaa agagtaaattt 60
aacaactact cgtgactaat tctgtgttt tttaattttt gtacatttc tcttttaaa 120
tttaggttgtt ttgttgtttt gagctgttag ttttgaatga tggatagagt atttggattt 180
attgttagatt atgaagaccc agaactgaaa cttcatagat tggtagattt cgatgactgt 240
aagggttgtt cttgaaattt ttacaacgtg actgtttgat aattctg 287

<210> 21
<211> 284
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a8-1-2 ; homology with
(chlorophyl)-geranyl-geranyl reductase

<400> 21
cagatgagta tgtgcagaag atgacatttg acagctattt gtacaagaaa gtggcaccag 60
gaaaccccat tgaagacttg aagtttgcgt tgaataccat tggaaagttt gtgagagcta 120
atgcactaag aaggaaaatg gacaaactca gagtataaga ggattaatag cattaatattt 180
tttcttgtaa ctgaagagtt tatttctcaa attactctgt aaacaccctt catcccttc 240
tcaataggat ttatgttaact tcatgatttg agttacattt ctcc 284

<210> 22
<211> 287
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a8-1-4 ; homology with an early wound
inducive gene

<400> 22
gaacatgctg attgcagcag ttgaagaacg atatacgat gcagctctgt ggagggacaa 60
gcttactcaa ctgcgtcca aacgaaactg gatataacag gtgtgctta gagttgtctg 120
agcaaaaggac tactgtgtat atagggaggattt attcatcgga gccaatgtgg tcagcatcgt 180
caaagatcaa ttgttagctct ccgttaatat gtaaaataac ttgtgaatat ctgtatagat 240
tgtatgcta atgtaaaaca aacaggtaaa cttatggttc ttggaca 287

<210> 23
<211> 344
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a9-1-2 ; homology with epoxide hydrolase
[I]

<400> 23
cgtaaaaagt ggaatggta aagaatatgt gcctaatctg gaaaccatat tcttaccaga 60
aggcagtcat tttgtacaag agcagttcc tgaacaggc aatcagtta ttatcacctt 120
cctcaaaaag ctcataat aactgcttg ccagcgacgt tgaataaagg gcaaccagt 180
gcacgaaact cccgttatgc acaaggttt ggaggagccg gcatttggtt cttattttc 240
agagttgaat gttgatctca gtttatcaa acaataccat atcacatttt cgccatattt 300
ctacttgtat gttgatcaat aaaagggacg atggtttacg cgcc 344

<211> 255
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a9-3-4 ; homology with ISI10a glucosyl transferase [I]

<400> 24
aagagagtaa tggtagtga agaagcagag ggattcagaa acagagctaa agcgtaaag 60
gagatggcaa gaaaagctat tgaaggagga ggatcatctt acactggatt gactactttg 120
ttgaaagata ttagtacata tagtttact ggtcattaag ttatgattaa aaaaaaagta 180
gttcttagta tgattctat actgttttg tgcttttct gtatgtgact gtgctaattt 240
aacacatttc ttttgc 255

<210> 25
<211> 216
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a9-4-1

<220>

<221> misc_feature

<222> (26)..(171)

<223> n can be any nucleotide

<400> 25
cattaaacaa gaatttagcgg tgggantttg gcaagaaaaat tagaatttgg tctaccgtgt 60
gtgcctttta gcctattgaa aatccggattt cattttgctc taggctttagt atcttggttt 120
agcttgctcc tattgggttt tattttttt tatgttttat gtattaaagg naggattcag 180
agaataaataa catattgttt atttctagtt ttgtca 216

<210> 26
<211> 212
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a9-5-9

<220>

<221> misc_feature

<222> (62)..(62)

<223> n can be any nucleotide

<400> 26
ataagaagaa aattacctct acaatctta cttagaatttgg tggatgtaga gcaaggatgc 60
anagacccga gctaataatga atttataaat atggattgtt gatctataat aagatataag 120
tttcgataact ttctgatatt ttgctataga atttggagat gaatggatc tccagaactc 180
tcatttcattt gtaaaaagttt ttgatttttgg 212

<210> 27
<211> 199

<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a9-6-11

<220>

<221> misc_feature

<222> (73)..(73)

<223> n can be any nucleotide

<220>

<221> misc_feature

<222> (144)..(144)

<223> n can be any nucleotide

<400> 27
taagcagtga cgtagatacc ctttacagag agtgtgtggg tgtcatctaa ctagctgctt 60
cataaaaacat ctnccctgtg tatatatcta tatttaaatt attttatatg tatatataga 120
taatagctag ttatcataat atantttaaa tattgatttg agacaagaaa taaaatctca 180
aaacccaacat attctttcc 199

<210> 28
<211> 178
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a9-7-1

<220>

<221> misc_feature

<222> (26)..(152)

<223> n can be any nucleotide

<400> 28
gaaatgagag attgaatttc aatgantgca tttcaggaag agtactctgt gatgttcaaa 60
gttgcagtg aattatcgta gtgtattnct agtgggtgtt ggtnccattac ctttccccaaa 120
taagacattt attgttgac atnccaattt anaatgtca ttttgtatcg ttctcttg 178

<210> 29
<211> 196
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a9-7-10 ; homology with LOX1
(lipoxygenase) [I]

<220>

<221> misc_feature

<222> (36)..(36)

<223> n can be any nucleotide

<220>

<221> misc_feature

<222> (188)..(188)

<223> n can be any nucleotide

<400> 29

tagaacttta attcaatata aaagtattaa atccangtgt tgttattgtt tcttatatt 60
cctaataata atagaaaata aaattttta ttttatttc aagggagttc cagctacagc 120
taaaggangt aatgctgttag gctcttctgt tctgtaagta attcattgt atcaacaagt 180
gcccgatttt aaatttg 196

<210> 30

<211> 197

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a9-7-11

<400> 30

gaagacaaga aaaactatag gacattacgt aaatattgaa tatagataga cttatgcgt 60
tgtgatgtaa gaaaccttta gaagacatgg tcaaactcca gcttctctaa cttgtaagaa 120
atgatcaaga gtgaacctgg cacagtcgtt ccgcaatttg ttgctgtttt gtcttcaattt 180
taacactacg cttccac 197

<210> 31

<211> 340

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c1-1-3

<400> 31

aatcatttaag gtttaaaaga aaagataaca cgtaaaaacg catcctttt acctttatcg 60
tcaaatttca aatgatgaat tacggagaaa ccgaatttgc aaactccata actctgctgc 120
tgttattctc gtctcagaga gggagagacg cacaacgaac atcaaaaatag cgggagaagc 180
tcggaaaaat atgtttcat atatttat aatttgaagt gaatttggtt tggtaaaaaat 240
ttaactccct ctgtggattt ttattgaaga tataattttt tttcaatgtt cgtttctgt 300
ttcgatttattt gaaagatagc aacagaaaga ttgtggctta 340

<210> 32

<211> 336

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c1-1-5

<400> 32

tgtatgatcg aggtgttaagc cctttccctg ctgccaatgc agtagtttgtt ctgaggagtt 60
gacaattgtat gacaggttgtt gacagttgtat gattttcttt cctactagat taaagtctac 120
cttcactcat gtacatgata agcattttgtat cagaacagttt atggttctgtt ttataaaaaaa 180
agatttaggtat gtcttgactt gcattttctgtt gtattttgtat agtgcagactt cgctctttaa 240

cttctatgcg tggggccttc tccttcttgc tcgtgattgc ttcttataaa 300
attnaagtaa aaatacatag cctggcattg ttcttg 336

<210> 33
<211> 400
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c1-2-2

<220>

<221> misc_feature

<222> (9)..(86)

<223> n can be any nucleotide

<400> 33
agctacgann tgnctcnagg gcnnngaant gcgnncngng antnatngca ncnnngannt 60
antgttnnan ctggaacnga ntccangcaa cctgtttctg tggattctc cacgtacctt 120
tggcttgtt atacatgttag atcgtattgc cgtcaacact taataacttg tacacgaaac 180
agcttctgtt ttgaagtctt tcccagtc当地 tggtcgatag cattaatcgg ctgagatgga 240
gcttagatcc caagagtgc tgccttttag acgggttgac ctaatcggt gtttgactc 300
tattatgata ccttcatctg ctgcactaag aaattgacaa gtgcggtaa tttcttacat 360
gaggaaattt caactggaat gccttagtat tattgtttt 400

<210> 34
<211> 330
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c1-3-12

<400> 34
gaaatggatg atctgaaagc atcttaagt taaaggaagt ttgcaactca gttgagattc 60
atccacactg agagaaacctt ctgaaacaac catacttctg ctttatcctg ttgtaccatg 120
aatagctgtt gcagcagaca atgagcttt tttaaagaca ttgggttgtt aactaaaaac 180
ggaaggaact ggattgaggc aataagtgtat tctggagaat agtgttttg ctc当地atatt 240
taatttcatt ttccagatca tgatcaccc tttgtgtttt acatgtttaa ggacttcaag 300
tgaatgtattt gttcagtaag ttttattacc 330

<210> 35
<211> 334
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c10-3-1

<400> 35
gagtaggatg ctggggat ggtcttctgt tttacagaat cctttacaga tctggattc 60
aagaagacca tgttagatgg taggatgtct tgagatgaag catgaattat cttacgccgg 120
aaatttttaag aacttttgc cattttcat ttacagctca acagttata tcgatttagta 180
gatttagagc ttccctcattc catattctaa tccttccaac acattatcct agtctgtcta 240
gtattccctt tactgcattt ggcaaacttt gagctataat tgtactggtc ccaagcttca 300
aaagaatgtta tgaaatgagc cattcactcg ttga 334

<210> 36
<211> 334
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c10-3-5

<220>

<221> misc_feature

<222> (2)..(111)

<223> n can be any nucleotide

<400> 36
gnanagagn gnaantttggg ngganagnntg ctgttgcnaa nccctanttt cncccngcca 60
antgnggaaa ggaattaata aaanaagttt ggattatnga acgtnggaag naacaaaatt 120
agtaattcctt attactagtt attttcattt gttaacacca ataataacta atttgcttgt 180
ttggcttcat atctggatgc tcgcttgtgt agcttattat tgtcattgtt tgtatgaata 240
aaccaaggcg acgggcaact cttgactctt gtaaaaagta gacggttct cagtgtagaa 300
gtcggagtag taccattcct gaaatcttgt cttt 334

<210> 37
<211> 216
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c11-2-1

<400> 37
aatatgaagg ggggtaaatac cgtaaatata attaactaat caaatatcga ttacaaaatt 60
gtaagataat tgattgaaga atatccttct tttgtacata attatttca agattatata 120
aaatgaaaat tgatgtttga tcgagatgac tttccattat ttaagttgaa aatggagagt 180
ggttgtttca atataagtat ttaatctga ttttct 216

<210> 38
<211> 179
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c11-3-1

<400> 38
aagtgttaag taaaggtttc cattgcttat ccccggtata tttaccttat cattttctgg 60
ttggacatta ccgtgatagc tagaagataa tcatgttgac tgagaaatct tatttctatg 120
actgtaaaat ttgttaaaaa tgagaacgag ataagatttc ctattccgaa gcacatact 179

<210> 39
<211> 182
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c11-3-3 ; homology with caffeoyl-CoA
O-methyltransferase 3' [I]

<400> 39

ggaggataaa atatcatctt gtaaataaac tttactcaag ccgaatgaga caaattttaa 60
gtatgttca aatttcaga agtacaatat ttgaaataca aatataataga aatattaata 120
gcgataatag tcatgagata caaaatattt attcacaat caaaagaaaa acaaaggtag 180
tt 182

<210> 40
<211> 441
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c13-1-6

<220>

<221> misc_feature

<222> (242)..(242)

<223> n can be any nucleotide

<400> 40
catcgatgg aggacaaggc aagtgaaggc gacagcaaga aacctcagag cagctcgaaat 60
agacagactc ccacttcaaa tccattcca gcttcttcgc aatctccccc aattgccaaa 120
tccacaagta ataaaagcaa aagcccgctg cctccatctt tgccattgtatc agattca 180
acgtcgatcat cgtcgaatc tcctcctata gttgcaaat ccacaagtaa taaagttaca 240
anaccgcaac ctccatcttc gttgatataca gaatcaaatt catcttagaa ttcttgatgc 300
agaatggccg tgcttattt gattcaccag tgattcttt gctcgatgt acaaaaact 360
agtaattaac taccactcga gaagccttgc aaattttgtt tacacgaatg cattcaatga 420
actgggatcg accttctttt t 441

<210> 41
<211> 340
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c13-2-1 ; homology with L19 ribosomal protein

<400> 41
agggaccagg agagaggcca gttcaacctg cagctccggc tggccgca ccagcccaac 60
cagctcaggc atctaagaag tcaaagaat gagcatgtt aattgttgg aggggccaa 120
gcctgcttt tggttgcgtt agtataacat ttttgttgc ttgtatgtt cccttattgg 180
tcttttaact ttggaaagaca acgttacctg tacgaatttg gaagctgtt taaagtttg 240
ataccctgtt tctcagtgtt acctttact catgtttgtt ttatataattt aacttagtt 300
ttttgcgtcg catggatgtt agtgatgtt cagcttatttg 340

<210> 42
<211> 184
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c13-3-13 ; homology with 23S 4.5S rRNA genes (ch1)

<400> 42
ccagagacga ggaaggcggt agtaatcgac gaaatgcttc ggggagttga aaataagcat 60
agatccggag attcccaat agggcaacct ttgcactgc tgctgaatcc atggacaagt 120
aatgagacaa ccatcttgc gtatattata aagcataatg aataatccat tcttatgtt 180

agt

<210> 43
<211> 186
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c13-3-6

<400> 43
gaagacaata caacattaat caccttgcc tctgcgactt agagacaatt gaactactgc 60
attttgctt atttctatg ttgtatctg agtataataa cgtcgtgagt gagtttat 120
ttgcaaggat tatccagtcc aatccatgct tgggttaat gtatattgc caaaaacttt 180
ctattc 186

<210> 44
<211> 549
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c14-1-60 ; homology with a glycolate oxidase

<400> 44
ccttcaccaa ttcatggctc ttgaagaggt tgtgaaagct gcacaaggcc ggatccctgt 60
attcttggat ggagggtgtcc gcccgtggaaac tgatgtcttc aaagcttgg cacttggagc 120
ttcaggcatt ttatggaa ggccagtagt ttttcattt gctgctgaag gagaagctgg 180
aatcaaaaaa gtgttgcaaa ttttgcgcga tgagtttgag ctaactatgg cattgagcgg 240
ttgccgccta ctgaacgaga taaccgc当地 ccatttgc actgaatggg atgctccacg 300
tgctgctttt ccagccccaa gtttggaaa atgtaccta agtgtcaat ttttgcata 360
aagcaagta ttgcttact gtttcaagaag cttatattt gttttgat acttgcgtt 420
gtttaatgag ttacgata tttaagctt ttctcagtaa tggaaaactg ataaattctg 480
ataaatggcc agatatgcct ccatttgc acctcttatt tctatatac atcatattgt 540
gaacttttc 549

<210> 45
<211> 49
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c14-2-10

<400> 45
attgctatac ttttccaagt ttgataatat gaaaagacat ttctgtttt 49

<210> 46
<211> 553
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c14-2-15 ; homology with L35 (60S) ribosomal protein

<400> 46
ggggaaaatc aaagactgag cttttggctc agttaaaggaa tctgaaagca caacttgctc 60
tcctccgtgt tgctaaaggc actggcggtg ccctaacaaa ctctccaaaa ttaaggttgt 120

gaggttgtca atagcacaag tattgacagt gatatacacag aagcagaaga cagcattgag 180
aaaagcttat aagaacaaga agtacttgcc tcttgacctc cgtcccaaga agacttagggc 240
cattcgtaaa cgtcttacca aacatcaggc atcttgaag actgaaaggg agaagaagaa 300
agagatgtac tttccatta gaaagtatgc cattaagggtt tgaattgatc caacttagat 360
agtttgtat gtttagagcaa agctgaggat cattatttt gccatttgc aatgttatat 420
tttgtattac tactattatt gcattatgaa gttgaggtt tgtagtttg tttgccttat 480
gcgtgcaact tttatgtcat atcctgtcta cacttcttt tctacacttt tgatcgagtg 540
tcgtgattat tgt 553

<210> 47

<211> 311

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c14-3-4 ; homology with L25 (60S)
ribosomal protein

<220>

<221> misc_feature

<222> (49)..(49)

<223> n can be any nucleotide

<220>

<221> misc_feature

<222> (159)..(159)

<223> n can be any nucleotide

<400> 47

taaaaggaag attaaggatg ccgtgaagaa gatgtatgac atccagacna agaaagtcaa 60
taccttgatt aggcctgtat ggactaagaa agcatatgtg aggttgactc ctgactacga 120
tgcattggac gttgccaaca aaattggaat catctaaant agtagttacc tgtagttaaat 180
tttacgagaa tttaaatct tggattgagt ttttagatac acttgaatgg aagtgccttc 240
tattttcat tttgaatttt gtgtttgga gacatgtttt gttccgtata agagaaatca 300
acttttatgc t 311

<210> 48

<211> 272

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c14-5-1 ; rice genomic homology

<400> 48

actgggatag tcaaattatt gatcatgaag atgggccact cgaaaggag aagcttctgt 60
ttgcagtgaa atcatattgg acagcgccag ctgctcaagg atcttaact acttaatccc 120
actgtttta atcttctta cttcaaagtc taatcatatt gctaattcctc tctttattc 180
tttcacatgt taagttctag tattacttgc aaattgtaaa ctctaggatt ttaatgattc 240
ttcagcaact acactgaagt aatgagttct gt 272

<210> 49

<211> 270

<212> DNA

<213> Nicotiana tabacum

<220>
<223> plasmid c14-6-11 ; Arabidopsis genomic homology

<400> 49
ggaagattat gctggcgatc gccgatggac ttggatcatc gccgattcaa atggttcttg 60
atgatagtga ccagaatatg atcaaacaag ctgccatct cgaagcttct aagcgtcctg 120
cctaattaat tataactggt ttccagttct cttagaaaat aagtccttttt tttattgttt 180
caattttcag tcatgtcttg tttccatgct gtgttctcaa ttctgttaatt ttacataactt 240
atatacaaaat gaaatgttagg acaactttat 270

<210> 50
<211> 193
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c14-7-4

<220>
<221> misc_feature
<222> (18)..(19)
<223> n can be any nucleotide

<400> 50
tcaccaaatt ggcttgnna cttataatta ttgttagcat ataaaaagaat aactattgtc 60
atattacatt tttccctaattt gttcaatgcc ttttttagttt tcaacaaattt caatgttttt 120
tggttcactt gtttgaga tgattgaaa atcatcaatg taatgcagtc tatatttgaa 180
cgaaatttcat tga 193

<210> 51
<211> 203
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c15-1-2

<400> 51
aagaaatcct gaataaacatt tcatttggga ggaggttataat tatagttaat ggattttgggg 60
ttttttgcc agtaaaaattt tgttcaacat ttaatagaac tctgctgttgg aaggggtttg 120
tttttatatg attagttact gtatttgtat tcaacagaca atattaattt aaatcaaattt 180
tctgcgtaga ccaacttctc ttt 203

<210> 52
<211> 492
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c15-1-4 ; homology with CBP20 (pathogen
and wound-inducible antifungal protein) [I]

<220>
<221> misc_feature
<222> (402)..(461)

<223> n can be any nucleotide

<400> 52

ggacctcggt ggcgaaactc ttgtggcaa tgcttaaggg tgacaaatac aggcacagga 60
gctcagacca cagtgagaat cgtggatcaa tgcagcaatg gcggactaga cttggacgtt 120
aacgtttcc ggcagctcgac cacagacgga agaggaaatc aacgtggcca ccttattgtg 180
aactacgagt ttgttaattt tggtgacaat atgaatgttc tggtatcccc agttgacaag 240
gaataagaag ctatatatgg ccatgttttag tcttgacgg cccaaataaaa agtaaaaaga 300
acgatatgtaa aaaaaaaa gaaaataaag ttgccttgat ggggttaggc aattccaata 360
tcttattcaag aatgtcttc gttttggaa gaaagagtga antgtgtatt atctttgtga 420
tttgtatgcnaatattgtg atttttaaac aaanaatcnc ntgggacagt atttgttgg 480
ctccctttgtac 492

<210> 53

<211> 201

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c15-11-2

<400> 53

ggatcatgag gtctatcgag tgaaggcaca tgcgatggcg agaaaaaaaaa agctttgcc 60
catgtctaga acacaatgcg gatacatttgcg atggccatc tgaaaggaac tatactgcatt 120
ccaagctgtt aatggccata atatttcca atatcatgac atttcttcac tgttattgga 180
taaacaagct t 201

<210> 54

<211> 199

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c15-11-4 ; Arabidopsis genomic homology

<400> 54

agttgtacac caaacttatac cataagtttgcg aaaccatttt atttccagtt tacatgtact 60
aaatttatcggt tagatttgct tatatgtattt gtacagtatgt tctaattggaa agttgtatgt 120
caatatctcc agagaggaca gaatgacgaa caaactgttagt gtgcgagaat attgcttcta 180
aacatataaag tttccgtt 199

<210> 55

<211> 431

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c15-2-8 ; Arabidopsis genomic homology

<400> 55

gtcgcacaaa ggctccgtt gataacaatac catgaagtac ccaatgttgg acatttgcgtt 60
attcatgatc gagccgtgaa ggagggttac tggaaagacat tcttggccgg agagaaaagag 120
cagatagtgtt attcttaaac gggagaagg agattttagat gttcccttgcgtt aagaagacac 180
attctgtgtc ttttactgtt atatcctatgcatacatata taatcatata taaagttcgtt 240
gagcttagtag ctcaagttt ggaacttcgg tggataatgg tttgcccctc tacccttaact 300
gagaatcctt ggggagacgc aagtttcgg actcgatggtaatggattt gaccccttac 360
cttctttaa gacggttttgcgttacttga atgtgcattt cggttaaaaa cgttttaggtt 420
gtggccttgcgtt 431

<210> 56
<211> 446
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c15-3-4 ; Arabidopsis genomic homology

<220>

<221> misc_feature

<222> (33)..(33)

<223> n can be any nucleotide

<220>

<221> misc_feature

<222> (61)..(61)

<223> n can be any nucleotide

<400> 56

aagaggaaca agtcatattg atcgctagat ttngcattta ccgtgtggat aaaatccgt 60
nggagtataa tttcacttgg gacgatgtac tgaatttcag gctctaccc gcaagtagtc 120
ttaatatccc tcataagaaca ttgcctcgaa tcttcactga tgtgtttaat gaatttgctc 180
agatgagtca gagaggtagc gtaaatgccg agcctatctt aaatatcggtt ccagtcttgg 240
gtgctggag gtcttatcg accttggatg atatattcac gtgtgaattc atcgcttagga 300
aatgttagat ctcatataaa tttagggaaatt atatattaaa tggtgagaaaa aagagagttt 360
tgaacttcaa caaattctta taatgttatt gccaacccaa ttgttgcaaa ttacacttag 420
ctttacagga aatgaatata tgaagt 446

<210> 57

<211> 247

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c15-6-2

<400> 57

gaaccaagta aaaggcctga aatggaaagg aaaacaagca atcacaacta gacaacttca 60
acatagaatg cttttactac agtatttaag gacaaaatca caaaaagcta atgaaaaaac 120
tggaggtgtt tgagctcaa cactactcta ttggaaaactg ttgttatgccg atactatgtat 180
tgtgttttgg ataatatttt tgtggtgcaaa gttatgtatgt aatatgtatgt aaactattaa 240
agcgtgt 247

<210> 58

<211> 325

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c15-6-3

<400> 58

accgatcaag tacctaatta gagttccaaa tgctgcttag gctttggtcc aacaaggct 60
tgttgtcca ggcatttaac tccttttgc ggatatcgat tctttatccg cctgtgagt 120
gatgcttcg ttttgccat cttctggaaa gtttagttga ctgtaaaaac agctaaactg 180
taaactaaat tagcagagga aatctgcgc cagatattc aacatgcaag gatataatac 240

ttgtcgagaa taaaatttc agcttctatg gcctttctg tgatacttc aggaaaacat 300
tctatcagaa aatacatacg ttctg 325

<210> 59
<211> 235
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c15-7-1

<400> 59
gttgatgatg tgaagctctt gagggtcagg aaccctcgta gattcctctg agtcatgtat 60
tttatgtaa aacgtgaaat ttgcgttta tagttagt aaatttgggtt gtaatgaagc 120
aaaaagaatg tggggagttc tggttcttt agctgttta ctagtagtgtt tttccatatga 180
gtatgttatta tactaatgtc taatgaaagg caaagaagta tatatatttt gattg 235

<210> 60
<211> 307
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c15-8-5

<220>
<221> misc_feature
<222> (217)..(306)
<223> n can be any nucleotide

<400> 60
taatgagcgt gacggaccaa atttagtata tagatagtac atatcttcg cattctagta 60
caatttatac ccataacaaga gtatacattt atgttactcc atacaatga aagttaaaaa 120
agttattgaa tgtggattc ataatcatag ggacaagcga tgtgaattct ctatgtttt 180
atgaacgact tgtatgatgat gttcccttag aatacanaaa ttaaatatat ttattgcnaa 240
aaaaaaaaata cntgactcan aggaatcnac gagggttcct gacnctcaag agttcacnt 300
cntcanc 307

<210> 61
<211> 342
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c17-3-1

<220>
<221> misc_feature
<222> (35)..(243)
<223> n can be any nucleotide

<400> 61
agaatacaa gtactgcattt cacaaggcatt ccctngggca gagcttggat gatattaaag 60
gttccttcga gtggtaaattt ggcaaaatct gctagcgtgg cctgtgtacn cctgcacatctt 120
ttccccattaa caaccttcctg ttgtatgtat tgggtcncatc gtgtggatgc tcattgattt 180

gtactaatct gtaacgaagt gcaactttca gagattaagg ttttgttttc catttcngtc 240
 ccntggggtg ttccgaaaca actatggtg cttgtaaatt cctctgatct tgacagtggg 300
 ggcaatattc ttacaaattt atttcaattt caaccggta ta 342

<210> 62
 <211> 287
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c17-3-5

<220>
 <221> misc_feature
 <222> (52)..(244)
 <223> n can be any nucleotide

<400> 62
 ataatgacgt gtcataaaaa atgtgatgtg gatgacgacg tgtcatccac antgtgcatt 60
 tgaagaacac agaggggtt aaagttagtgt gttttaaca actacgagtg ncttgataaa 120
 agcttggta gtataggggc cgagatgaca aatcaggaca agtaaaggta tttattaggc 180
 tattatgcct taattattta taatttgctt aaacaatgtt tttaaaaaat atttacagct 240
 attnacttgt atatcagacc tttacatgaa tttagcttat tgaaaa 287

<210> 63
 <211> 211
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c17-5-5

<400> 63
 attactattg agccttagac tatgatggat atctataaga agaacaagca aagcttgggt 60
 cgcttatggt ggccttgtg atttacatt tactctactt cgaatttca attaatttga 120
 ttatattctt ttgatttagtt tagttctata cttaacttgg gattgttgat ttactttgac 180
 ctcttcactt agtattctca cttagttt g 211

<210> 64
 <211> 211
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c17-5-8 ; Arabidopsis genomic homology

<400> 64
 attgaagagg attggggaaa ttcctgctgt tgaggagttt gtttacctta aattataaga 60
 actgtttgat ttctgtctga attcgctaca aagcaaaatt ttgatgttgt tatttggta 120
 ccagtagtag tctagtgcag gataaaaaaa taatttggat gtgaaattag aagtgttagta 180
 catttggtg tcaatttgac aatcttttg g 211

<210> 65
 <211> 187
 <212> DNA
 <213> Nicotiana tabacum

<220>
<223> plasmid c17-6-2

<220>

<221> misc_feature

<222> (134)..(173)

<223> n can be any nucleotide

<400> 65
gatagtctat tagttaccca aacctgctcc gtatatttg catattgtca aagtgatctt 60
tcaggtactt cgtgattgtt gtattcattc taaattttgc gatcaaata gttcatcctt 120
agtgattgtt caantaatac taaaactggc actattnngg tttgaattca cantttctca 180
cataatt 187

<210> 66
<211> 382
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c18-1-2 ; homology with DNA-J domain
containing protein

<220>

<221> misc_feature

<222> (53)..(53)

<223> n can be any nucleotide

<220>

<221> misc_feature

<222> (72)..(72)

<223> n can be any nucleotide

<400> 66
cttgataaga ggatggcaaa cattcaaagc cgcacctcg a gttcggaggt ttnatccgg 60
tggtttgaac angttatgac aagaaggaa gcagcattaa ttcttggagt cagagaaagt 120
gctgtcctgg agaagataaa ggaggctcac aggagagtaa tggttgcaaa tcattccagac 180
gcgggtggta gccattatat tgcttccaaa atcaatgaag ctaaggaagt cttgttaggg 240
aaaaccaaga cagctaattc cgcttctaa ttcaccattt tgtttgacc ttcccttcta 300
acagcttaat tgtccgtata cgtgtAACAA agtgaattt gatccgtaga catgttacta 360
tcataatttta ggagacttct tt 382

<210> 67
<211> 340
<212> DNA
<213> Nicotiana tabacum

<220>

<223> plasmid c18-2-1 ; homology with CCT (chaperonin
containing TCP-1) beta subunit

<400> 67
aatatctgag tcgttcaaag tcaaacaggc agtggcgtc tctgccactg aggctgctga 60

aatgatccta agggttgacg aaatcatcac ttgtccccca aggaggagag aggaaatgta 120
aaaacaatat tggctatgtt taagctgtg agatgactcg tattttatta tggtttgaga 180
atttgagatg gtaggtgtgg gctgtaaacg agtcaaatga tagattgcta ttgaaaccat 240
gctaaagtgc actgcgctga gtagtttctt ttgaggagca aatgtttgg tttttttca 300
taatgtatgc atgcttctat agaaaacatt tgttcgatac 340

<210> 68
<211> 336
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c19-2-11

<220>

<221> misc_feature

<222> (70)..(294)

<223> n can be any nucleotide

<400> 68
aaataagggt gcggaagcaa acaatccagg acattctgct ggatcattgg tataccgtaa 60
tgaaggttt gttantttgt ttctgtggca ttgttcaaatt cttttatcag tncccgctt 120
ctatagaggc aaaaggaaat ccttcatttc agcatgtacc tgaataatt tgaaaaata 180
aaagttgata agtcatgttag cttagctgtt taatagaaga aagagatgag agttagattt 240
agtatagatg ttttatctat accttnctgt ggtatgtagg ctttactgc tcanctcata 300
cctcattgac acatctaatttcc acttct 336

<210> 69
<211> 338
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c19-3-10

<220>

<221> misc_feature

<222> (63)..(324)

<223> n can be any nucleotide

<400> 69
caggcaacta ataccaagcc attagttct cattatgaaa aactttacaa agacaaaatt 60
acncanaact acaagccaaa aaagctcaac atagtaactn tgatcaaattg atcatataat 120
atttgcagcc ttggacacac ctcagcaaca gaatgaaacn tcaacaacac taanaanttg 180
cacacctaaa tccaaaacaa aaagactcga ctccgtatca naaantangg tttacntgaa 240
aatgtatgat ggttncnaac actgaaactg tctaacnnt ataanttcnc nctctcaana 300
caancnttat ctctgttcgt tnancgttt ggttttat 338

<210> 70
<211> 323
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c19-4-19 ; Arabidopsis genomic homology
Page 23

<220>

<221> misc_feature

<222> (102)..(154)

<223> n can be any nucleotide

<400> 70
actaagttc tgcatttggc ttgatttctt atcaagttga gacaatattt gtcattacaa 60
ggcattttta gtacaaaaaa aacattagca gtaactaaaa antatanctt ctgggttggg 120
gggattcanc aatttgaaga ntctgttgcg tgantttaca agctttcttg ctccataatct 180
ccactctcat gctttcactc ttctcaatct tatcgtaaga ttccatttcat tcagagacc 240
tcctcaattt tgtctcaag ttcatcatta atctctcaaa tccccatcatc tccactctgt 300
atttcttctc aatttaattt cct 323

<210> 71
<211> 326
<212> DNA
<213> Nicotiana tabacum

<220>

<223> plasmid c19-4-22

<220>

<221> misc_feature

<222> (111)..(323)

<223> n can be any nucleotide

<400> 71
taaaggatat tgaaaagtaa atcctgcaag cacatataaa ggtatgttc tacaaaaaca 60
taaatcgat aggttagaaat gaaaggcggg ctgagagggg aagtgcagca nagtgatctc 120
ctgataggac ttctgaacca catnctacgt nngctttaaa gcactcaag ccactactgg 180
agaaaacagca ctctccactt gtatctcagg aatgcactat aagaaaaatct antataactan 240
ctggacaata taataggtag gtattnaagt ggaaaagggt aaagggacaa gcccattatc 300
taccatgttt tgaactgcgc acncgg 326

<210> 72
<211> 256
<212> DNA
<213> Nicotiana tabacum

<220>

<223> plasmid c19-5-1

<220>

<221> misc_feature

<222> (25)..(220)

<223> n can be any nucleotide

<400> 72
atatacatct ggagcaaatc acgantttta atacaaaact caccctacaa aacatggant 60
cnccactgca tcttaggcattt ntggacagca anaaaaacaag caanttgggtt ggccgcctnc 120
actattnaca ttactctat ttgttgcattt ttaatcaatt tgattatntt atttgggttat 180
tttatttcta cacttaatct gggattgctg attcagttt gacttctta ctttagtattc 240

tcacttcgtc actggc

256

<210> 73
<211> 257
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c19-5-4

<220>

<221> misc_feature

<222> (25)..(199)

<223> n can be any nucleotide

<400> 73
attnaatgta ttagcgaaaa atctnctttt gtttnggttt atattgcaca ttctcatgga 60
tatttttact atttgtttca tagtttaaca tcagcaagtg ctttcttatt ctggtatatt 120
gacgccaatg tantaggctt tgactttctt ttaaacattg ttgttgttga catctaaagg 180
ttctctaaat ttgaatttnc actcttcaat ttgcttcctt tgaatgcaat attgctcg 240
agctttgcat ctttggt 257

<210> 74
<211> 242
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c19-6-3

<220>

<221> misc_feature

<222> (70)..(210)

<223> n can be any nucleotide

<400> 74
caaacttagga tgtctgaaag actgaaagcg ttagaagtaa ataagtactc atttacagcg 60
gctgggtgtt acataccaaa acaaaacatt caacaagatt gtatccaaa gaatacctgg 120
aaaaattaca acacttggga actgaanaac cttanctgac cccagaaaac cattaaaggt 180
aatatagcgc atcttacac gttgtgaan atcacaaaat atcctcaatt tggccta 240
ct 242

<210> 75
<211> 257
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c19-7-4 ; homology with putative
translation initiation factor 2B beta sub. NIFb

<220>

<221> misc_feature

aagttgttgg aatcgattta attttgttag ttaaaggcgg atcaatcaat atatcttcc 180
tg 182

<210> 79
<211> 359
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c2-2-1

<400> 79
aacgggatac tgaatggtag gacggcctct tcttcgacca ctagcaacca ttagccgac 60
caagttcaaa gatgaaacat actgtattt gccagtggac attcttttg tggcttat 120
ccttataggt ttttggcat tatctctgtt attcctgtc aaagtagtattt atgatggcag 180
acctcttttag agagatcctc aaagtttatg tgggtttat ttatatcatt tttctcgat 240
agttaaatat tagggatat tcttccttcg gccatttgat ttgggttcaa ggtcttgaat 300
gtcgcaagaa atagctcagt ttaaaggagt ttagaatgt tcttccttc tctgccccc 359

<210> 80
<211> 356
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c2-2-3

<400> 80
agaaatataag ggtaaggctg cgtataatag attcttggtag ttcgaccctt ccctggcacc 60
cgagcttagt gcacccgggtt gcccttttat ttcagaagat gtatattatg aactcttgggt 120
tttagatttagt ttcagattat ttttaagaa attttttt agcaaagagt aagctcactc 180
tttggttctta ttagtaataaa gtttggtaag ttatcccttc acaaatgata tacagtattt 240
gtgtgagggtt tttgggggtc atattcttgtt gtattaattt ttgcatttgc acgtgttattt 300
gctcaattgg ccagattggt tttctcttct taatgctaag cactacttgtt tttttttttt 356

<210> 81
<211> 338
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c2-4-1

<400> 81
gtggtttccg tgaatcgta cgccaaatat cagtttagcaa tggtaactaa ctccatggca 60
acataactggaa aatgagtgtt aatctgtt ttcagatgtt gtgtgacttc ttcttgata 120
gctgggtgggtt gttacttgtt cctagattca ctctcaactctt cattgggtgtt gtcctgtgc 180
tagtgcggg tcttattgtt gctctttttaga gttgatgtt tattttactctt acctatctgt 240
tgaagtttat ccaattggta tactttttt gggttttttt aacaaagtgca tatttcgattt 300
tgtaatttca atttcgatca aaccaccccttta aatctgtt 338

<210> 82
<211> 336
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c2-5-6

<400> 82

ggtggcctaa tttgcagtt tgathtagt tcatttcattg ctatttctg gattgaagtt 60
aatgccgga aatctgtttg taacctaattt cttcaacaaa tcaattgaaa tatcacttca 120
aggcacttca ggtcccttcgtt gcacgggttg agagttcca acagatttcg gagattcact 180
agtagctgc ttggcattcg cagcccaatg cttcccttc tatcttattt tctccattt 240
tagttctgtt atagactatg tagactcttt ctgtttaaa tcggtagta gatattcatg 300
actggtgaca ccccttgc gggctatgtc tatttc 336

<210> 83
<211> 256
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c2-6-5

<400> 83
ttaaagaatg ttttgtctaa tcttgtgctg gcttaatgc acgtcaaagt ttgctgtcat 60
cccctggcaa tagcggacaa caaatctgcc agctactgat gctgatgggt atttggtaaa 120
gtggagaagt aaataggatt ttatatactaa tattattgcc tttcatagtt ctcagagtt 180
atgttagaa caagcacagc tgcaaattgt tattactaat tttatggtgg aaatctgtt 240
aaagtttattt tctttt 256

<210> 84
<211> 254
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c2-7-1 ; homology with patatin 3'-strand

<400> 84
atgatgtcgg tttgcattt gggaaatgca agttttactt tggcagattt ctccaagtcc 60
tttaggggggtt atggatttcc cctacaacag aattactatt tttcctttct ttttatgttg 120
ttttggctta gaaggatgtt ttatattttt taacacaacc aaaagtctac ataatcctta 180
gcatatttca aatttacata gaggatatt tctattgaaa tttatccctt aacgttacaa 240
gcgcatttttca ttta 254

<210> 85
<211> 219
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c2-9-14

<400> 85
ggaataacat tgggtttgtc gtttgggtttt ttggatgtta gtagaccggc aagatatcta 60
gcattttgct tctgttaaca tggacattat ggatttgtaa attcaactga ctacttgc 120
acgtctctct ggacatttgg gttattacatt ggtacaagtt aataacaccc ttatctctc 180
ttatattatg ctttctgtatg aatattccctt ttccctctg 219

<210> 86
<211> 337
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c20-1-4 ; homology with DNA-binding protein (pabf) [i]

<400> 86
gaagatgcgc ttagacttgg aggcaagtgt a gctacccacc tctaattgtca atttttttagg 60
ttaaaggcagg atttgatatt ttgttgcaca gtatgaagta tgtttttagtt ctaactgtat 120
tagcagttga tttcgtcatt tgataattac cttattctgc taatttgggtt aatgacaatt 180
aaggggggaga caaaatcatg ctcgtgggt atatgtactg ttgtttgagt atgttgaatg 240
gatggaaatg cctttgttag atagatgtat aatgccggca ttatccctca tcaacagttg 300
cctttgcaaa tgtcgtaaaa gcatttgaat tttattg 337

<210> 87
<211> 337
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c3-2-4

<400> 87
aaagcaactc cacgttagtg ttataaaaacg agttaataaa agtttgactc tgatactatg 60
tgaagaatc taagcactaa aacaaaacct ttaggcaata gtataacatt gagatgtttc 120
cttcttaatt taaagaagga tagaagttca gtgcactctg ctcacaagat gtagtacaag 180
gattcttcaa ccaaggattt tgatggactt catgttgaga ttggaaaact gaattcatta 240
ctggagatca ttgttcatgg ccctataaat ttgaaatttc aaagatacaa atcaaattac 300
ttatatgtgg catacaacaa gacactacta atacata 337

<210> 88
<211> 92
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c3-3-6

<400> 88
ggttgaccgt gcttaatata ggcagggagg ttgataatta tataaagcac atctgaatgt 60
taatccacgt aagaacttaa tttgattgt tt 92

<210> 89
<211> 257
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c3-4-1

<400> 89
gcatacgactt tttccacca tcagattgt tggcttgcga taagagacga ctcttttag 60
caaatctata tgataacctg aagaatatag taagaattaa tctgctataa ccagttaaat 120
agtactaatt acaacttttt ttttaaagggtt gtttgtaaa cattttccat gccattttgt 180
ttgtcaagta ccgaaaaaac gtgggttggc tacaaaagtc ttaacctggc tagctagcta 240
cctgctactg agtatct 257

<210> 90
<211> 345
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c4-1-2

<220>

<221> misc_feature

<222> (44)..(45)

<223> n can be any nucleotide

<400> 90

taatcaaaaat tggtaaaaaca atccaaacca aaaaaaacgg tttntgttg ctcttgg 60
aatatatcc gaatgttcct taatacctag cgtatgtat aataaaaatg tactcttgc 120
gctctgttt gtattggat tatttaattt tatttggat ttataattt ttaaggcta 180
atcgatagt gttgactgat gtttggaaaa tgtcatcaga tatcaatgtt ggaaggcatt 240
tagctcagta aaattatTTT aactaaatca aaagaataaa atactatagg ttggagtaaa 300
taagttgtta atggtagtgt ttttctattt agtcatttgg gatta 345

<210> 91

<211> 193

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c4-3-3

<400> 91

tactcacggg gattaatctc atcacgggtt caaatggaca aacaattatt ttacatggag 60
agtagagacc ctccagcttc ttttattgt tagtagtagt gtgaattctc gtgttctcaa 120
tttgatagt tatggttct aacttatgtt ttagatcatt ttaacaagca gcacagagat 180
caaattgttc act 193

<210> 92

<211> 340

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c5-1-2

<400> 92

aaacttagtgg tttatttgg tcatcgtaa tatggagcag ctgcaataat atcttcacaa 60
tagtactcat tgacttagatt tgacacttcg gatgaagcca aggcatcttc agagtttgg 120
attctacaat gtttccaagt tatatctgct ttaatcggt tctgcttgc gctaattgt 180
cttttgcgtc tgataccgt gtccaaatgtt gatttgcgtt ttagggattt tcagattgca 240
aggcctttat ttactcggat caaatttgcattt attgcgttc ccctttttt gagaattct 300
gtatgtccca tttctttctt ccaatggAAC tttcacttta 340

<210> 93

<211> 343

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c6-8-13

<400> 93

agcagaaaga caagtgtgg tctggagcca tgaatcgcc cgagtactct gcctcctctt 60
gttctggc aatgcgttt tccactgggt ttgctgtggc gtaagtctt gatggatgc 120
aactcaaact aataaaaatg gaaactgttt atacagctt tggaaagcta accaataag 180
atttggatcat aatgcgtgg gttatgttca gtttggca ggcaatctt ctgaatggaa 240
tggatgttca gctgcccccta ttgagaggaa gaggacttct tattttctt aaacccatag 300
acaagttcat ctataaaaat taatcattat tctttcttcc 343

<210> 94
<211> 337
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c6-8-4

<400> 94
gatagggtac agatggacct tataagttag aaaactccta atgcaatcat ctttacttat 60
tgaaaatatt tatagtgtga cagatacttg gc当地 gct acagttatat gtactattta 120
atgaacaagt tt当地gtgt ttgggtatatg atgtaatttg tt当地caga atttattctt 180
ctgagtggtt cactggtagc atgatttaca agctaaatgt atccatttc tgagggatag 240
gatacagttt gattgtttt caatatctga tttgacactt tgccctatga ttcttggttt 300
ggaatggata caagcaagct tattgctgtt ctgattt 337

<210> 95
<211> 294
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c6-8-9

<220>

<221> misc_feature

<222> (165)..(291)

<223> n can be any nucleotide

<400> 95
atctacacga gcttcgtatg tgtaagacta ctggatcaga ttatccactg ctctgataacc 60
atattaaaaat cagtgcgtt atgaagcaat tgaactcgag gtatgctcca attatggaaa 120
tgaaaacttg gcgaaagaagc cccaaattag gggcatgtgc gacannngag aagaagagaa 180
cttagaagtgtt aaagtctcaa ttgttatttgc tatgtaatgt cgtatataatc agtgtttttaa 240
aagggtgtggc gtaaggcttag gcattttaca catacctcag cggggcgtaa nata 294

<210> 96
<211> 338
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c7-1-2

<220>

<221> misc_feature

<222> (37)..(234)

<223> n can be any nucleotide

<400> 96
caaaggactg tgcttcatacg tggtgctggg agaggtnntg cagccactga cacatcaagc 60
accaacgagg aaaaggaatt gaaagaaaat aataaattcg atgttaggatc aaatttctat 120
ttggttgggt taattttttt gaaatgttgcata ctgcaacagg agaatgacag tccttgaaa 180
ttttaagtttta cttatcc aacaagagat tgcaatatg ggaggtatga gatnatctt 240
gtttctttac cgtcctttac atctgaaggc aacttagcat aggagttttt aaatgtatca 300

aatatcaata tttcagcag agttcatttgc ttctttat

338

<210> 97
<211> 341
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c7-1-6

<400> 97
atgtgaagggg gcaagagaag aaaagaaaaaa gaagaaaaatg tcagtcacaa acattcaagt 60
gttatatatgt attcaacttt tatactttct ttcaaatgat ttttactttt gcagatgggt 120
gaaagaaaaaa gaaaagagtt tttccaaact cgagacagaa aaagaaaaga aaaagcattc 180
ctctcttctg aatcttgatt gcgtcttgg tgttgcgga caaatgtcct gagatgggtg 240
aacttcacat ggtcgctgtt tgttgtgc ttgtataaaaa tgtattgtgt atttatcatc 300
tttctactat aaatcgaaat tttattaagt tgaagtcgtt a 341

<210> 98
<211> 314
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c7-3-10

<400> 98
atagcatata tatgttgaag cccctgctcc caactcaacc ccctcctttt cttacagcca 60
ttaatatatattt ttggaaatagc tatttcctat ttttagaaaaaa aacgaccatg tattgttcat 120
tgacaagtac tttcatacccc tgctcaaagc aatatgtgtt ttctcgtaact tggaagttaa 180
tttgctgttgaacaactct tgtagctta gtgttgtggg gtgagctata actcggccctg 240
tgtgattttgt tacatttggt tgagcatttt ctcttatata agaagagaca gtgaggtgtc 300
tgtctcatgg tcag 314

<210> 99
<211> 276
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c7-3-3 ; Arabidopsis genomic homology

<220>

<221> misc_feature

<222> (89)..(89)

<223> n can be any nucleotide

<220>

<221> misc_feature

<222> (186)..(186)

<223> n can be any nucleotide

<400> 99

ggctgagaag aagaagcgca aagctcagtt gcaggaggcc aatcgaaaaaa aaatgaataa 60
gagagttagag cgtaaaatgg ctgcagttnc tagggataga gcatggcag aaagactggc 120

agaactgaag aagctcgagg aagagaagaa ggcagccatg gcttgatgg tattgaacag 180
agtttngatc tgtaatttt ctctcttgg tttgagagtg aaaaatatata taatccctta 240
ttaataggc acaattttct tcacacaaatt tttatt 276

<210> 100
<211> 418
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c7-3-9

<220>

<221> misc_feature

<222> (3)..(409)

<223> n can be any nucleotide

<400> 100
acnaatnaga antaccacgt gnantgtcnt gntacngtna taagngaaga ggttcgatcc 60
ngntcatcnc aaatgnccnt ggccccgtgg naagctcagc cnngacaccg gantgtttgc 120
nnngngtntt attacagcta anntttattt ctccaaangn gataanagat ngttctgtga 180
nnaggnntnng attgnatccg ccggaganc gaaagtnatt nttgcacatcat anagtnngtn 240
agangtgaact cccntntctn tgcngnata tntntattgg ngggggntnt tttagnattc 300
cagtnccattc cganatatacg atcncanatt ncнатаннн tacnanngcg ccccccgcng 360
nntgtannnc atnngggaga tctcccanac gaggccggan gtagagtngaaaatctc 418

<210> 101
<211> 244
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c8-1-5

<400> 101
ggaatatgca taattttgtt ttcttttttg tttaaaagag ttcaacctag ttttatctgc 60
cagaagagag aaacatcaag atgtgagcat cagacaagct tataataactc tctctatata 120
gatttctaca aagcttattt ttggtaatgt cttgtgttgt gtgtataact tcaaccccat 180
ggaaatgcta cgtttatttag ctcgtgctgt ggcacccaaa tgaatcttga ttgtgtcatg 240
ttct 244

<210> 102
<211> 346
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c9-1-4 ; homology with Drosophila heat
shock protein 82

<400> 102
gaagtcgagg accgtgccca acggtcagca attacaagag taaatgcaga ttagtgg 60
gtcactgtat ccgcacactgc agctcggtt gaagctaaca atgaacttat ggaattcatg 120
ggtcgagttac tgggtctgaa actatctcag atgactctcc aaagagggtg gaatagcaaa 180
tcaaagcttc ttgttagtgg gatggaca gctagacaag tatatgagaa actcttgaa 240
gctgcccaac cttgagatgg ctccctgatc ctttttttctt ttgtcattt ttccatgttt 300
gtaacattgg attttagtt tcataaaatt gaattcagtt gtctt 346

<210> 103
<211> 360

<212> DNA

<213> Nic

<223>

1220. *prasinata* gen. et sp. nov. (Pl. 1, Fig. 1)

qaacqaga

<210> 104

211 556

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g12-1-21 ; Arabidopsis genomic
ABA-regulated gene cluster homology

<400> 104

ggtgtggattt	gactatgcac	atcgcaaagc	aatgaattcg	actatgaaat	tcatcacaag	60
ctcaaagaac	aaggcgtata	catttttag	aacgactacc	cccgatca	ttgagaatgg	120
tgaatggaat	acggggaggtt	attgtaaatag	aacaggaccc	ttcaaaacaag	atgaggttg	180
cattgggtat	gtatggatgg	tgatgcgcaa	aattgaattt	gaagaattcg	agatgtatc	240
gagaacagaaa	tctgcagaca	ggttgacaat	gaaattgttc	gataccactt	tccttcgtc	300
gctgagacca	gatgggcacc	ctggagtcta	caggcaatat	cagccattt	ctaaagaaaa	360
tatgaacaaa	aagattcaga	atgattgtct	acattggtgc	ttgcccggcc	caatagattc	420
gtggAACGAT	gtaatgatgg	aaatgttgtt	caccagttga	aaatggtgtg	acatttagatt	480
ttgattttgc	tcccacaatt	gtattgttca	tctgaaat	atggttgcac	actattttc	540
accattgttt	cctctc					556

<210> 105

<211> 579

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g12-1-5 ; Arabidopsis membrane related protein CP5 homology

<400> 105

tattattcaa	gttggtat	tggagaagt	gaatcaag	gaggtaac	ccagccgac	60
cgttgtaa	tgattctatt	ccatcatgaa	gatatggca	tcccatggg	aattgc	120
tttgggtaa	agcaaggat	gtggggagct	gtgaggaaga	ttgagcg	attccgt	180
taccagaaag	ctaaagcatc	tggcttggaa	atatctcatt	gtgctttat	ggctagagtt	240
aatacaaaaa	ttgatcgaga	atacttgaag	tcaatggaa	atgatgagga	ctcatctgaa	300
actgaattgc	aagcttcacc	tgcaaaaacct	gaggggcatg	acatacc	gctgattatc	360
attgggtggag	ctgtggcagt	tgcttgcatt	cttaatcaag	gaatcttacc	caagggtgctt	420
ttgtttaatg	ctgtggaaag	gtttggaaat	ataggaagg	gagcatgtcc	aaggacatg	480
catttgattc	atgcgtgcatt	tgcgcatttgc	ttttttccct	gtttaagcat	tcacttttaa	540
qctctttata	tatTTaaaaac	aaqcaaqgtgt	tatTTtotc			579

<210> 106

<210> 100

<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g14-2-4 ; homology with vetaspiradiene synthase PVS4 (sesquiterpene cyclase)

<400> 106
gatagcatgg aaggatgtga atgaaggaat tcttcgacca actcctgttt ctacagaat 60
tctcaactcg attctaatt tcgcgttatatacatgtc acttacaagc acaatcaaga 120
tggatacact catccagaaa aggttctaaa acctcacatc atcgctttac tggtggactc 180
cattgaaatc taaaccattg agtgctttt tcatctcggt gatcgttta ttttatttt 240
taaataaaagg atcagaactg tgtttctgtg ttcccttta tataagcaag ttgagttcc 300
tacttctgtt caaacctgt gtttgttctt ggcgtctgaa taatataatt ttgtttgc 358

<210> 107
<211> 264
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g14-3-10

<220>

<221> misc_feature

<222> (219)..(220)

<223> n can be any nucleotide

<400> 107
caaagataaa gaaggctgga gttgttaagac aggagcttgc taagcttaag aaggacgctg 60
cttaagaact ctttgattag tgagattgt atgataggag ttttggaaat cggtgtttt 120
tgcttttaga ttttggttca ttactggcaa gtcatttggt ttcatctttg gtgtcattga 180
agactcctag aaatcaattt cccaatagg ttcatttgnn ttatgtatggt gaacattctc 240
ttcgcagaca cttcattttg ttgc 264

<210> 108
<211> 211
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g14-3-22 ; homology with orf 03 A. thaliana

<400> 108
ctccatcaa gcagggactg gttggggac tttatgggtt ggaaaccagc agttggatg 60
gagaatagcc aatcattctg gcataattt acaatatgg a tagctttgtt tggagctgca 120
ctcttttgc aaaatgtat catatacaag taaagctgtt tattgtctag ctttctattc 180
tttattggta tatatagtct gatgtgtatt g 211

<210> 109
<211> 262
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g14-3-3 ; homology with sequence 161 from patent EP0953640

<400> 109
acattataat aggatgtaaa gaatgaagca ggaagcagtt tcttactaga acttctacta 60
taatttgttgg a ttatattgg gttgttcatt cagaaagctt tgccaagtaa cttagaatta 120
gtgtttacat ttgtatgtct ttgtttgtat attactaaga agaaaagata ttggggaaaa 180
aagaaaagcca gaccactgaa tggcaggctt gatatgaaaa ctggccatgt atagaaggat 240
atttcgttta tttcatttt tg 262

<210> 110
<211> 265
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g14-3-4

<400> 110
gcttcaagtg gatgtatgtg atattaaggc catgattaaa ttggggccgtg gtgtatgaaaa 60
tggtgtgggt gtcacccccc aagggtttct ccaaattttg tctctttgtat ttgttgcttt 120
gatgacgtatg ataaatgtca gatttaggtga acaagtttg gtttactttg tatttttcaa 180
tgatttggtt tactgtgtcg cttccatatgc tattggctat tccgagaatt ctatggaaa 240
acaagaaga aaaagatgg ttccg 265

<210> 111
<211> 260
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g14-3-7

<400> 111
atgaagaaga agagggcggt ggtgtact acattgagtt tgaggatgaa gacattgaca 60
aaatctaaat ctgaacgcaa agctgctgtt actgaggctt gttataggcc tttctaattgt 120
ttttgtggag cttttccat aaacatttagt agtgtatctt gtgtatcggt tgaagttatg 180
tatcaaactt tgtcattgt gagttttgtt ttagatttt gcttccatga aatgaatgca 240
atattcttagc tgggtctac 260

<210> 112
<211> 469
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g15-1-37 ; Arabidopsis genomic homology

<400> 112
atattcctgg aaacatctca acttgcattca tccccacttc gtcaagatct accgccaagt 60
gtcatactgc accatcttta ctcacgcggg cctgaagaac tacaatcacc attgcaaaga 120
aatagactta ctccgacgca gtattcactc tggatggatt cacaaggggg ggaccaaatc 180
tgaaaggta ttaaagctac tctggacgac tatgtctgtt aggtacggtc aagaggggac 240
aaggaattt gtcctgtcta ccctttgtat ctggaaatcg gctcttctt atctggaaat 300
cgtagagga gctttgagag aatgcaaaagc tcaaatcatc ttctcttggt atatgccctt 360
ccccatattt ttgttcaat aatattgtca cagatgaaca catagcagac cggttatctat 420
gttcgttta gtgtcttact ttctttatatttacatc aattgattt 469

<210> 113
<211> 350
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g15-2-2 ;homology with ubiquitin [I] able
to induce HR-like lesions

<400> 113
gttgatgtcg ttgtgtcgtg ttgattgact gtgtctgtt ctggttgtgg tcgtatgtg 60
ctttgtctac tgaggtctca aagatgtct atgcatttc tggttgcgt ttcctttatg 120
ttctctgtt tgaataaaga ttccgaattc tgtcctaaaa aaaaaaaaaat gaagtttatg 180
tatattggaa gaaggattgg tgtcgtcacc aagtcccatt tgatatatgg ctgtgtttt 240
gcttggctaa ttttgttta aactttctt ctatctgtc tcaataatact cctgaacaga 300
ctgatgtacg atttaaagc tatgtatgt aaaaactctt tatctttgc 350

<210> 114
<211> 345
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g15-3-11 ; homology with sequence 7 form
patent EP0953640 [I]

<400> 114
gtggatgaag ttaaggtgac ccctgttgc tagaagtaca cagagcttt gtaatggca 60
atagagttt ttgcaatgtc aatttcatac ttattaagct accactgtga ggcatttgct 120
gtatatttacc tatgtgattt ctttaaacta tgaatttagt gcctgctgt agacttgcgt 180
actattgcct ttaaggaagt gtggatctag ttgaacttcc tccctttatc tatgtgcact 240
ttgatcttga ttcttagata gtcaagaagt aatataaaa attgtactac tatattcaa 300
attttcatg ttcttgaag gatgaaatat aaatgagttt gtacc 345

<210> 115
<211> 344
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g15-3-7 ; Arabidopsis genomic homology

<400> 115
gatacatggaa atgagttgt gtttgcattc atagggagag acttccagag tagacagagc 60
aatgcttcatt aagaagaagg atccttaatg ctaaaaaaca tttttgtgc ttctacagca 120
cagctacggg aagattattt atctctctcg aatggagttt agcttttagt ttactttaga 180
tctcttgcgt tagctgggt tgtaatctat gtttagatcc acggtaag ataattcccta 240
agttacacga aatttcaca ggtctcaagt atgtgtcag ggatattaa ctaaatacaa 300
acgccccctt tgcaataaaa tatttcattt gatcccccc tcgc 344

<210> 116
<211> 301
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g15-4-1

<400> 116
tgaatgttta atgttagaaa gtgaattact ctctttatgt ggtgtctgaa catatgttca 60
acattactct tcaaattacc aataattaaat agtgcgacaa gttatagttt ataggttcat 120
gaaaaattgt ttccatctt taaattatag tgctaaattt atcacacatc tgggtgcacc 180
tatattatag ttctgtctt cattgaaaat gagttcaag ttttctatgt gaattggata 240
ttagtataat aagttggagg gttgcttttc attctttga aagggtaaag caaacatca 300
C

<210> 117
 <211> 525
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g17-2-13 ; homology with wrky (zinc finger DNA binding protein)

<220>
 <221> misc_feature
 <222> (466)..(521)
 <223> n can be any nucleotide

<400> 117
 aagtggatat tttggatgat ggttatagat ggaggaaata cggacagaag gctgtcaaga 60
 acaaacagatt cccaaagaagc tactaccat gcacgcata aggatgtaac gtgaagaaac 120
 aagtacaaaag gctgtcaaag gatgaaggag tagtagtaac tacttatgaa ggcatgcatt 180
 cacatccccat tgagaagtcc acagataact ttgagcacat tttgactcag atgcaaatct 240
 atgcttcctt ttgaaacgtc catcactca atgcctaagg catgacactc aattagtcac 300
 ttgtaaaata gtactacagt atattgtgta catgcgtttt gaacctagat gctatatttt 360
 gaaataaaaaac gcaacccat taggaaattt aatttgatca ttgtacaact aaaagtaatg 420
 ttgctatttt ttgtttta tcactttgtt ttgcccggag ccatgncttc attttaactc 480
 ttcttttag aattaacaaa taattnatcg ttggagaaga ncgtg 525

<210> 118
 <211> 225
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g17-3-2

<400> 118
 gaccaaattgaa gaaatgctgg agatcaccac atacttccag gcaaagcaac 60
 ctcaattttt gttacaaaaa gatttcttga ttaaactttt gaaagtaaac acgtgtgtgt 120
 agagaagtaa atgcaggcac tgggatttca atatcggttcc attgatgtcg gtacagttagg 180
 agattgaaac taaacattttt cttgaagttc agtacgtgtt cattg 225

<210> 119
 <211> 412
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g18-4-7 ; homology with L18 (60S) ribosomal protein

<400> 119
 attgagaagg ctggaggaga atgcttgacc tttgatcagc ttgctcttag agccctctc 60
 gggcagaaca cggtactgct taggggtcca aagaactcgc gggaaagctgt taaacacttt 120
 ggttagagctc ctgggtgtccc acacagccac acgaaggcctt atgttcgggc aaagggagg 180
 aagtttgagc gagcaagagg gaaaagaaag agcagaggtt tcaagggttgg aggaattgcg 240
 agtgtttgag tgcacagatga gagaattttct tttagaaggt ttcccttacc tactttttac 300
 catatttagct tctttttctt gtcgaatttc ttatccacc cctgtttctg tgacactcca 360
 acctatagcc gattttgaat gcttttattt tctattctac gaaattaagc tg 412

<210> 120
<211> 373
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g18-5-1

<220>

<400> 120
acattatcaa gacgaaggca ataagtggc ttactcattc ttactgaaaa acggggctgt 60
gaatttgtt gtaatctca agaatgtact tggccatc aatagaaaag caaacaatat 120
tgtgttcagt tacaggcttg ttgggtcttg ctgagagttt ttttctagt tcctgaaagt 180
tatcttgcaa gctatcatgt agctgtgtgg taatttcac aggtttgagc tacagttgaa 240
gccagtaaca tgtgtgata ttatagctaa aataactaat gcttacctgc agttccgtt 300
tgtgtggaat aaggagaaga attgatgtgt aagcatggct tctgtgagtt gactctatta 360
tctattgcat tac 373

<210> 121
<211> 390
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g18-5-12 ; homology with
capsanthin/capsorubin synthase, promoter region

<400> 121
ggttgcagg gtgtatccga accctattt cagaaaaatt atactgtata tacaagggtca 60
aaatttattt ttctgtttt atagtttagat gttaaattgt cttggcttt tcgtgtattt 120
atttctttat attttgaatc ttcttggtga aaatccctagc tctgtacaca caaagagccg 180
acatgctgat ctctctctct ctctggacgg agagtcttct gaagtgattt tgcgttctt 240
cagtgtgttt atagatcaat tttagtgcctt tgtcaaatgg atttctaagt gaaaaaagag 300
aaaaagtatt tcaatgcgtg tgacctaccc tgcataaaact ctgcattatg gatatacaat 360
gttctgctt gatatatgtat tatgttttgg 390

<210> 122
<211> 381
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g18-6-12

<400> 122
tcttgcacga ggctggttat acaagggact catggttgct tctgaatgac ttcatataga 60
tcctggacca ccctggttt aagatggagg tagaagtacc aattgacttag ttacaccctgc 120
aatttcattt actataattc agatgtatct gtgtacaagg cagccgttattt ctgtttttt 180
gttgaattcg cgcacccgtca ttctccgtt gttttttgtt aaatctctt ctgtttttt 240
ctttggcccc cgttttatgt ctgtttgcgc ggcaggagaca gaaacagaga aaccggccgtg 300
taattaagat aaaagcttcc agcttattca gaagatcttgc aatatgctat aattttatc 360
tctcacaaac tgtgtatctt t 381

<210> 123
<211> 356
<212> DNA
<213> Nicotiana tabacum

<220>

<223> plasmid g18-6-5

<400> 123

ttagagaaaa agagagagga aaatcgaga aaaatcttca aaaaactgag ttgagtaaaa 60
tttcaaaaaa ttttagttgt catttctttt ctggctttc ctttccagtc gatctttct 120
tcagaaaaca aaaaaaaaaatg gttcaacttt agtttgagt ccagattga tctcatttct 180
ttgcttaggtt ttcgtttgtt gttatttgc gggttttgc tttacccgtg gctgaacttc 240
cttcatctt atttctgctc tctaccagct atttcgagct ttatttgtt agtattctag 300
gtacacactt tcaaatctgt actgtttctt catgaaaagg gctgaaaatt ttgaat 356

<210> 124

<211> 293

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g18-7-5 ; Arabidopsis genomic homology

<400> 124

aagaaaaagta gcaccagggg cttgtccttg ttgtggagga aaagtacaag ctgtagatgt 60
agaaggccgt ttcagatttt gctttctccc tatttgcttt aggttcaaga ggaagtatct 120
ctgtactctc tgttctaagc gtttgggttt gtattcttga tctccctatt ttccctttgt 180
aatttctact ctcaattttt tgaacagcat cctataagtg taattattta ttgaaatag 240
tggggagag ttgttcattt gctcaagaat atatgaaact tttgttagttg tgc 293

<210> 125

<211> 259

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g18-8-7

<220>

<221> misc_feature

<222> (104)..(104)

<223> n can be any nucleotide

<400> 125

tgaagatgtt gataaattgc tggaaagatat agggatgtat gttgggtgtt atgtatggta 60
cgatggaaac tagaatgtat ttttttttttcaatcaattt tatntcattt tatttcttgtt 120
tagttttctt cttctccact cccctctgtt tttctgtggc gcataggtt tacattgtaa 180
aaatttccca ataccaacat aatttaagga tggaaaccat cttcttgctt tgctttaat 240
ttctctacta ggttgcttt 259

<210> 126

<211> 491

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g19-1-5 ; Arabidopsis genomic homology

<220>

<221> misc_feature

<222> (485)..(485)

<223> n can be any nucleotide

<400> 126

ggttttaata agcttattgg tggttggttg ttcgagtttt ttggttactt taggagaggc 60
aagtggtagg tggacgagtt ttggggttat atttcaaata gtagtgagtt caggattgc 120
aactctgtta atgcttcaga gtcttgctgt gaacgtggtg ttgtatatgt attgcaaggc 180
atatcggtgg gagctggcgt ttgagatgc ggaggagtt gcgagtcagt atgtgtgtt 240
gcctttgat aatgagaagg ttccatct tggttgtt gttcaagatt gaatgtgcct 300
aaggtcagt agattatgtt agatgtatgc agttagtagt ttgaagaagt agtgtttgt 360
tttactcgta gcatgtatat agtttcttgt ttgttagata aatgattgaa gatgtgtgtt 420
acctgttggc aatgtgcatt tttatatgtt aaaaaagctt aatacctgtt atgaaattcc 480
ctccnagttt t 491

<210> 127

<211> 485

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g19-1-6

<220>

<221> misc_feature

<222> (467)..(467)

<223> n can be any nucleotide

<400> 127

taggaaatga cctttgcagg agttaaatca tataaatatt tttttggact gcaaataatg 60
ataatttttc tttttctaac caaagcaaaa taatatcatt tggaaattc agtcgggtgt 120
cctgaacatt attagtatta aatggagaa atgagagaac acgtatggcc actagagata 180
ttaaagctac ctaaatatga caatagatga agcagaggac agtataatat aatttcttt 240
taactataac atacattgcc ccctttatag atcaaagttt ttctactatt attaattta 300
ttactataat aatcatctct ctctaggccg ctatgtggga ctatgctaa cttgcaatat 360
ttaattttgt tttcatgttg ttcccttttc tggatgtatgt tttactgtc gaaaaaatttg 420
agagctaagt tgcattgttc tgagttcgaa ggattaaag caatgtnaat caattggctc 480
tatgc 485

<210> 128

<211> 484

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g19-1-7 ; Arabidopsis genomic homology

<400> 128

ggaggaaaga tcttagaatt ttcccgagg ttggttgcatt gtttctaccg 60
tcaatgaagg cagaaacagc gttttgaat ccacctctca tctctttgtt caacaagagg 120
gatgctttagt gatttgctgt acgacccatcg catgtacaaa gataccgtga atatgctaat 180
atctacaagg aagaagagga agagaggct gataggtggaa acgattttt ggagcgtcaa 240
gcagagtctg ctcaggtaacc cataaatggg atatctgcag acaaaaggcc tactaatcct 300
ggtgccaaac cattagtca ggaggttaagt tgtgtatgcac agaacggggaa agaaggtcaa 360
cttgaaaatg caactgagaa ggatgtcata ctgacccctcg tggagaggaa aatttgcag 420
actcagatgt ggacggaaat tagaccctct ctacaggcag ttgaggatat gatgaacact 480
cgta 484

<210> 129

<211> 224
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g19-2-1

<400> 129
 tttttttttt ttgggtggcg gaggaaagcg tgtggaaaaa aagaaagaaa aaagagaacc 60
 atagagttaa aggccagatc atgtctgcta tgagtcatca tctgttggta gaagagaatt 120
 cacttgttta atttacttc tcataattttat tatcatggga tttcatgttg gatggatgg 180
 ccagtgtgta tgtcaaatta attcttattt cgaaaaaaaaaaaa 224

<210> 130
 <211> 198
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g19-2-9

<400> 130
 ccagtgtaat tggactttgc gcaattgaga gacaagggt tagaggtata tacgtgattt 60
 aagatcgtga tctatcttgc tatctctcat tttttgaga ttttcttctt cttcttttc 120
 cccaaatctg taatttgatga gattcttagac agtggtagt gataatcaact agataatcta 180
 tgtataatca gtttatcc 198

<210> 131
 <211> 204
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g2-1-2 ; homology with 5-epi-aristolochene synthase (sesquiterpene cyclase) [I]

<400> 131
 ggactccatc gaagtttgag ctgccaatgttgc taaagaact tcattcttct 60
 gtgttgagaa agtagttata tatgtttttt taaattgtat aattaagggtt ttaggaagct 120
 gtttttgcga ttgtgcagtg gacttcctaa ctaggacctc cttgtaa gtaatcttca 180
 agtgttatga attcacttgc atttgc 204

<210> 132
 <211> 313
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g20-2-20 ; Arabidopsis genomic homology

<400> 132
 tgcgagaaaat accaagaaat ttgtatttgc gcaaaaaatgttgc gttttcgccgg 60
 gtgacacgag ggaaggagct ctatatggta cttgagaaatg ccaatgagac cttctttat 120
 gcctctgaag ctgttggaaa gttcagtgac aggtatttgc gttggcgctt ttctttgtaa 180
 gagggaaactt agattttggat attgccgaga cacaggatttcc atacaaaaga catagctaca 240
 tatcttatgtt tggtttaat tcaactttgtt ttgtactgtt tataaataaaa taaaaacttg 300
 atcctctccctt 313

<210> 133
 <211> 315

<212> DNA
 <213> Nicotiana tabacum

 <220>
 <223> plasmid g20-2-29

 <400> 133
 ttgcaatcaa ctttgaact aagggtggct ataaaagaagg tttggaaact tcttatattt 60
 agttgtttac gagacaattt cgtgcattcc tggtttatca agaaaaagaat tggtcaactt 120
 aatgaagcat gtctccacac tggatctatct attctgattt ccagtgtAAC agcttttttg 180
 gccattacag tggttatTTG atgatcacca gcattatcat atcttagtaaa gtaaacacgt 240
 caagtcaattt gatccattca actgtaaacta tgctgaattt tacttatgga aaattcggaa 300
 aatactattt acttc 315

<210> 134
 <211> 315
 <212> DNA
 <213> Nicotiana tabacum

 <220>
 <223> plasmid g20-2-31

 <400> 134
 agaatatacg tactacaagg tggttctccc agtagatcaa ctcaaagcca ttactccgtc 60
 aactatgctg tcaagaattt gcaagggtgca ttgctgggtc atcattcgta gctagcgtgt 120
 cattttcttg gtcatttcag atgaggtccg tgacactgggt gcttgctttt gtttagata 180
 aaattctgtt aagtatgcac atctgggtga ttgattgttg catacatgtt aatttatcag 240
 cggttggta tcttgtgtac atctgtttcc tgaattttttt attatctttt agtattactt 300
 tggttggttc gattt 315

<210> 135
 <211> 483
 <212> DNA
 <213> Nicotiana tabacum

 <220>
 <223> plasmid g3-1-1 ; Arabidopsis genomic homology

 <400> 135
 attttgagac cagaaggaa gctcattgtc cgtgacaaag tggaaagctgt aaccgaatta 60
 gaaaggcatgt tcaagtctat gcattatgaa atccgtatga cctattcaaa ggacaaggaa 120
 ggatttgttgcgt gtgtcagaa aacaatgtgg cgaccaacgg aggttgaagac actaactaat 180
 gcccggctt agctgcttag cgtgtgtgcg gatgtgggtt gtatatcattt cgagaggcgtt 240
 tcatgccacg gtgactagat agttttcga ttaaattttt gttactgtat tcttgcagg 300
 ctaccgtgtt ccattccata gcaaaattag tgctattatc actatataattt tggaaagt 360
 aagttttgtt atattatgtc attagttgtt gaggagggtgg acattctgg aattgtaaat 420
 gccattgggtt taggacgggtg gtaaaaattt aaaaacacca gaatgaaattt cgtttcaga 480
 gcg 483

<210> 136
 <211> 553
 <212> DNA
 <213> Nicotiana tabacum

 <220>
 <223> plasmid g3-1-4 ; homology with ADP-ribosylation factor

 <400> 136
 atagcaatga cagagaccgt gttgtggagg caagagatga attgcacagg atgttgaacg 60
 aggtgagct tcgggatgct gtgctgcttg tgttgctaa caaacaagat cttcctaattt 120

caatgaatgc tgctgaaata actgataagc ttggactcca ctctctcagg cagcgtcact 180
ggtacatcca gggacttgt gcaacttctg gagagggact ttatgagggg cttgattggc 240
tttctaaca tattgtaaac aaggcctaaa ccaacgtaga gttgttgcgg gttgatcctg 300
gatgcaggcg ggaaaaatc tagttcttt tcctttttt cccgaacatt cccagaatct 360
gtgtggttat gaatatccc tggaaagtgtat ttgcttcttg gtaggaccta ttgaaatgtt 420
tttgcataac agtgggttgg aatatgtaat tgggttta gttttaagta taatgctata 480
atttgcataa gagatagat gtttgcatt tcattggtaa atggtaatgg tataacttccc 540
tgggttcc ttc 553

<210> 137
<211> 501
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g6-2-13 ; homology with ACC oxidase

<400> 137
gagctctggt aattaacatt ggcgatgctc ttcaaataat gagcaatgga cgatacaaga 60
gtattgagca tcgaggatgt gctaattggca gtaataatag gatttctgtg ccaatttttg 120
tgaaccctaa gcctagtgtat gtaattggtc ctttggcaga agtgcgttag aatggagagg 180
aaccaattta caaacaagtt ctttacttag attatgtcaa gcatttcctt agggaaagctc 240
atgatgggaa agacactgtt gatgggtca aaatcaagta gaaatttagtg gatctgctcg 300
aagaataaga agtgcgtta tattaagcta atgtatttt ctttcatgtt ttttagtta 360
cgactactca gcaatttaaa aaaaaagaag agatgtctc atactgcaaa gtataggaga 420
atatttttg gattaattag gtgttcaat tttgtaccgg ataaattata attgagctgc 480
tgatattatg gcaatttttag c 501

<210> 138
<211> 373
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g6-3-7 ; homology with ATP citrate lyase

<400> 138
aaatagttaga gatcggttac ctgaatggtc tggttgct ggcacgttct attggctta 60
tcgggcacac atttgcattc aagagatttgc agcagccctt ataccgtcac ccatgggaag 120
atgttctctt caccaagtgttgc agacgcctcc aatagcagca cgcagaaatg cgccgtcttc 180
ctatccagca ttttatcgaa aagtgtttgtt ttagtcattt gttgtatca ttcttcttgc 240
tttctgttag tttttgttgc tccataagaaat ttgcttaagca tttctgttaag ttgttataag 300
agacaactctt ttttagttca caccaagatgtt cccttcaat tcctatatat caaagaaata 360
acacatttcatttgc 373

<210> 139
<211> 301
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g6-4-4

<400> 139
gttggggaa aaggcaaaaa gatgaagaaa aaggcaatgg aatggaaagg attgactgaa 60
gcatctgtca aagaacattc agggtcatct tatgtgaaca ttgagaaggt ggtcaatgtat 120
attcttcttt cgtccaaaca ttaagttaaa taagttacta catcattaa tcttccttaa 180
atttcattctt tttgttcttg taagttttt tcatacttat ttcccttctt actttcgttt 240
tgcattgtca cagtgttaagg ttggaaagcaa ataatataatc ctgcttaatg tcgttggc 300
g 301

<210> 140
<211> 299
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g6-4-5

<400> 140
aggtagatg taaaagacca atggcttgc taactgatgc tggtgcgaat gaagccaaag 60
ataaaggctc aagctagaaa ttgcagtaat actgattttt ttgcgtgttt ctttaacatt 120
accatcacta actagttctc cattttctt actgggttat ttactttcaa gtattttatt 180
tgatgaggcg atatctcatt acttttgtt ttccagttgt ttgcgttagt gaatttataat 240
gctggaagga tttgaggtat tagatagaaa gcatcttctg atttaacttc aattatgtg 299

<210> 141
<211> 356
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g7-1-1 ; homology with a A. thaliana gene
homologous to MEI2 (meiotic regulator)

<400> 141
cagtggagga ctcgaaatgg aacctgatga tc当地ataat ttgc当地atg gtattgcaaa 60
cttaagcatg tt当地atgtt atccaaatgg tgctgcaact gttgtcgggg aacaccata 120
tggagagcat cc当地caagga cattattcgt tc当地aaatatt aacagcaacg tagaggactc 180
agagttgaaa tc当地ctttt aagtagtgc当地 taacttacca gtttctttaa atttgc当地tct 240
gtaatttagc tatc当地ttttt cgtacttctt tt当地tgc当地t gtaaatgctt gtttctcatt 300
ttgtttgc当地 aagagatatt tt当地tttgc当地 cgacttcata tgcttgaaca ttgttc 356

<210> 142
<211> 350
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g7-1-4

<400> 142
gctgggtgatc aaggcttgg agatatcaaataaa gataaaatta tgataatgaa ttcaagaat 60
tccaatggcc agaatttgc当地 aaagaattca gatttgc当地 atttggaaaga gtgaagaaga 120
ggaaagatt ggaaaacatc tt当地tgc当地 accttgc当地 acaacaacga gtagaggctg 180
atttagaatt taaagtttaa gagttttat aaatttagag ttaaatattt gtatataattt 240
aatgaattgt ttaatatata tacaatatcg tcaataggtt attataaaaaa tgataagttt 300
ttgttagggag tgtaaaggaa aaagtttgc当地 aaaagaggag gatttgc当地 350

<210> 143
<211> 481
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g9-2-2 ; homology with P glycoprotein-MDRP
(ATP binding cassette protein)

<400> 143
gcgaggggcca tagtggaaaaa tccgaaaatc ctactattgg atgaggcgac gagcgcattg 60
gatgcagaat cagagagatt agttcaagat gcacttgacc gggtgatgtt aaatcgata 120

accgtgggtgg	tagcacatag	attatacaacc	attaaaaggag	cagatgtaat	tgctgttagtc	180
aaaaatggag	tgatcgtgga	gaaagggaag	catgagactc	ttatacaacat	caaagatggt	240
ttttatgcct	cttgggtggc	cctccacacg	cgtgcttctt	agttctactt	tttttcatt	300
aagtaaaattg	tattcatttt	aatttcgtta	tcttttgcac	ttttgctgaa	gaagagttc	360
ttaaatagtg	tactgcaact	catataaaagc	atagtatagt	agcattcttc	aattacccaa	420
tgagagaagc	aagtaaactt	gcctccccga	cttgacttga	tgtgttctgg	ttattaagtt	480
c						481

<210> 144
<211> 480
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g9-2-6

<400> 144	agcaggacta	gtcaaggttgc	atcttcacat	tagaaatgct	tgtatatatg	tgtatcagcc	60
	tatcgaggtag	atgtgctaga	aagtttttag	gagcagatac	aaccctggaa	acctgtacag	120
	cttcttacgt	ccctttata	cctgtactat	aagtaggtag	gtgggtggcct	gaaatcccat	180
	aagccaaaaa	aatatatacaa	gtaaagttca	ccatgctcca	ttacttagaa	actgtacagc	240
	ttgtgattta	ccaaatatgt	ctacatttagt	cctaataattt	ccttagatat	acgtagccta	300
	agtattaagt	caaaccctgag	ttttcgaag	ggaaaactttt	tgtagcaatt	cccttgatgt	360
	tgttgactaa	cttctcagca	gttgcaagtq	aatttcattt	attgtttgct	attttcctgc	420
	tgcgtatgtt	ctctcttaaa	attgtaaaat	gtttctgttt	gtttcacacc	agttcatcc	480

<210> 145
<211> 447
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g9-3-17

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<400> 145
tggggacagc aaaacccct tggttgtgcc agtgc当地 aat cattaaaca 60
ggaaacatgc tcaggaaag ctgaagatcg tagatgtctg aagttagttt tcccacgtt 120
tcactatccc agcagagatc cagaaggaaag aggaggaaaaa gcgttctacc ttaagcagct 180
agtctgttg tatcgtgtcat atttcatttc tggttggtt ttagatactt ctatgtacat 240
aaactatcaa ggtatttata tatgttcata ttttggctt agcttcattt tcataatgcac 300
attcggctgt gggctccctc tgtaaaataa tgagttctat atcattataa gcattaagct 360
tctcttgtaa ttgtatcagt aatattaatc tcttcatttc attagttcca tgactcaacc 420
atcaqcaqtt aataaaqagt ttqtttcc 447

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<210> 146
<211> 450
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid q9-3-4

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<400> 146
cagtgatagc aaatcaagta attttgaagg ggcagctgat ggttctcaca atgttggtca 60
gagatacaga gagaggggtc agggtcagtc aaagcgtgga ggtggaaatt tccatggtag 120
gcaagggtggc tctggccgaa taaatgccaa ttatgattga ttgatgagga ggctaaaatg 180
tggattttagg tcttttagt ttgtatgga tagcaaactt accggataat ctttgcttag 240
tctgcatgtc tgggtggtgca gtcttaggtg gtatctttt acgtggtaaa agagaatttg 300
ttggccaatg tcacacgggt gagctggact acagccgggt tttgccacat ggtttggga 360
aaaattattg tgtttgggtgc aacagtaagt gcggcattat gagaactgta attaatttga 420
aqaacattaa aataqttqcc cattttctcc 450
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<210> 147
 <211> 335
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g9-5-5

<400> 147
 gggaaacacag aggcagagat gatggtgacg aggagattga cagatacttg ggagttaaga 60
 acgggaaact atcagggaag ctatcaaaga agccaaagag aaaatgagga atatataatt 120
 aagctatttt agtccaattt tgacttaatt gaggaatatt ataattaagc tatgttagtt 180
 caattttgaa cttaaattgt tcttcattt ttccctgttg ggctgttaatt tgacatttct 240
 gcaattctgc tggatgggtt ttgatcttag ggactctatt atttcattt tcttgtgaag 300
 atccttcgcctt cctaattccta atatatacgt gcacc 335

<210> 148
 <211> 245
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g9-6-1 ; homology with LOX lipoxygenase

<400> 148
 gtgaaaagtgg acttacttgg aaaggaattt ccaatagtgt ctcaatttga ggttctacag 60
 cacgaatagc tgatatatacg cttttgcagt cctcgtaac ctgcagaaat catccgcaac 120
 ttaagcagga gtggcaacag atgtgtgtat atctattttt atgtcaatat ttgttttagcc 180
 aaattccattt attgttagtg tgtgtttta caataaaatc aatgagcaaa tcccctcattt 240
 ttcccc 245

<210> 149
 <211> 353
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid t12-1-7

<220>

<221> misc_feature

<222> (141)..(141)

<223> n can be any nucleotide

<400> 149
 gcattgcggt gcctatccaa agatcctcggttttagatcaa gcatgagtgatggatgtt 60
 gaacttagagc aacttttatca acaatctaaa gatgcaggta atactcgatccacggtaac 120
 aaccggcccta gaccacgttag ncgaagtgtt ggtgtatgtt gtaataaaaca tacttcagtt 180
 gcttatccaa gaccgtctgc ttctcccccattatgtctaaat aattcaataaa atgatatgtat 240
 gcctttcat gttttgcctt tatgttttc aagctgaaga acctgcacat ttgcagaatc 300
 agctgattgtt acagttgtttt tggtaatgtt attggatgtt tttgttaacct tga 353

<210> 150
 <211> 351
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid t12-2-1 ; homology with chitinase class 4
 <220>
 <221> misc_feature
 <222> (31)..(349)
 <223> n can be any nucleotide
 <400> 150
 gtaatataat cgtatattct ttttaaaata naatcatgta tagtggagtc tnatgcaatt 60
 ctccanaacat atatatgtcg ncctcaactac cgggggagca actaatantg aatatctnng 120
 gttatnctt gattcaactn ctgggnatna cttacgtcct aacatgttag attatcccc 180
 gtctccagac ccagtngtt acganactca gtataaact cagccctcn ggcaacagtc 240
 tgaagggtgga nctccncac atncnatctg gccattaatg gctcaaatgg ttgggccaag 300
 accttgggna naagntgatg aaagaatggg ngntggtna gnncgatanc a 351

<210> 151
 <211> 352
 <212> DNA
 <213> Nicotiana tabacum
 <220>
 <223> plasmid t12-2-18
 <220>
 <221> misc_feature
 <222> (30)..(347)
 <223> n can be any nucleotide
 <400> 151
 gaatagtgtga acttattttt caaatggcan aaatggactg acttaacttc tgtacatnag 60
 ctataaagat gataatcaga gtgcctnctg catntcatcc tcttcttgaa antgcaagaa 120
 ctggaaagccc ttcattgtatg tggagtgtaa acgtggtnct ataagttant tctttcgtgt 180
 cgtctgatag tttgaacctg aanganatgaa gaagagctan tggnnaaagat ctncatgngt 240
 caataaanga gatcttngcc taaaacanatt cgnggacnag cgtgaaatgn taggaaatgt 300
 gaatggtaac gctggnctgg aagaaganc nntccngnca agncaanc tt tc 352

<210> 152
 <211> 424
 <212> DNA
 <213> Nicotiana tabacum
 <220>
 <223> plasmid t18-2-5 ; homology with basic PRB-1b [I]
 <400> 152
 gttcgatgca acaatgggtg gtattttata acatgcaatt atgatccacc tggttaattgg 60
 agaggacaac gtcctacggt gatcttgaag agcaacatcc ctttgattcc aagttggAAC 120
 ttccaaactga tgtcttagtaa taacggttt cgtgatcaa taatgaataa aagctttgtc 180
 atgtgttaag gaaaattaaa taaataccag tactatgcta tgtgatgtt tcttcttacc 240
 cagtggataa taatccaatg gtgttagcaag ggggtggattt actgttatct acttgtttta 300
 catttggttt tggtggattt atggaggtgt gtatatgtat gtgttttgat gaataaaca 360
 agtgaacaag gtgatgagtc aacagcgatg taaatttggtt ctttgattaa tataattact 420
 tact 424

<210> 153
<211> 277
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t18-3-2

<220>

<221> misc_feature

<222> (40)..(265)

<223> n can be any nucleotide

<400> 153
ttcaaagtt tcgttgcctt accaaccacc ggtggatgtn gtcctccng cccacaagtn 60
aacctgatat ctnttgttt tcctntagta ctagaaaaat ataangtagt attagtttn 120
cattcttca atgtgtgcag ttacatccct atctttggg aggatacatc atcctcgnc 180
tcattggact tgaagtacca ccttaatcng taaccacaat ttttnaactt taaaataat 240
caaatttata atgacaataa tgncttct ccacttc 277

<210> 154
<211> 366
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t18-3-6 ; homology with chloroplast RNA
binding protein

<220>

<221> misc_feature

<222> (43)..(43)

<223> n can be any nucleotide

<400> 154
gtacttatgt atggtagagac tgggagatct cgtggctatg gtntttgtga gctatgaga 60
tagagaacaa ttggagaatg cccttcaaaa tcttaatggc gtggaaactgg atgaaaggc 120
aatgcgcatt agcttagcac aagggaaagaa acaataagat ggacaagatt cttgtatatt 180
agttgtaaaaa gttgaaaatt taccatcaat agaagaacaa tgtttattc atggattaag 240
atggctaaag gcttttaact aggacaaagg gagatgtacc atttgaatta catctccat 300
agttgagct ttctatcttt gtttcttac tgccttcat aatttagaga tatcattgtt 360
cctttc 366

<210> 155
<211> 282
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t18-4-18 ; homology with AGP-b (ADP-G
pyrophosphorylase, small sub.)

<220>

<221> misc_feature

<222> (47)..(265)

<223> n can be any nucleotide

<400> 155

gtaatcaccg	gttttattt	taaacgaata	attttacag	tacctantct	nctctttag	60
gggtaatgag	aantatctag	ctacataaaa	gtnggatgtg	cgctanattt	ctacaggnaa	120
acccaaatna	aagtagaana	tttctaccgc	atggctgttn	acccaagatt	tgggaggaca	180
accaagtnc	aangctncc	ttcanatgtat	aatgccactg	ggaatcaatg	ngtccttgat	240
nacngtgana	atcccnctct	agannaagta	tccatctgtt	tc		282

<210> 156

<211> 376

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid t2-1-1 ; homology with ubiquitin conjugating enzyme

<400> 156

accagaaatt	gctcacatgt	acaagaccga	caggtccaaa	tacgagacca	ctgctcgtag	60
ctggactcg	aaatatgcta	tgggataatg	gcaaaggcgt	caccaggcat	gtctgagact	120
ttgttaacagc	aatgtcttat	tgtgctgggt	gtgaatgaat	aaattcggcg	aaagaactta	180
gtttaacttct	taatctccct	taaagtgggt	tgtcaagaga	catgtctttt	caatttgtga	240
atatctattt	gatgactatt	agtaagggag	aaacctcatg	taattttact	ttgtttgcca	300
gtttacctga	gccttctct	agtttttcca	attgcctgg	cttgcctgg	tctgcgttca	360
aagttggat	tgattc					376

<210> 157

<211> 364

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid t2-1-3 ; chloroplast genome [I] homology

<220>

<221> misc_feature

<222> (3)..(257)

<223> n can be any nucleotide

<400> 157

ggnnnncaat	ngnnatcgna	cnagnnnncn	gnannannan	tccaaagctn	tcnaatnttc	60
tccattactt	gtgtggataa	gcccnatath	atagagtata	taacttcgat	catagggatc	120
aatttctagt	cgcatacgctt	cataataatt	ctgcaaagct	tccgcgctaa	tttccttcgg	180
atctgagccg	acatcccattc	tctgtatag	gtaaatgcct	cttttctcc	tgaagttgtc	240
ggaattactc	gtaatangat	attggctaca	attggaaagg	tcttatcaat	aaaatttcca	300
tttatccgt	atctaggcat	aggttagcaat	ccattctaga	attcttctca	ttacctctca	360
tggg						364

<210> 158

<211> 184

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid t2-6-3

<400> 158

gagatcgta tacatgaaat ggtatatacg aggacatagt ttccctttagg gaaatgtcaa 60
taggttagag aagaatggtt aaaccgcgg cccgacggtt taatttagtt attatataat 120
taggttatac ttttgacttg tatgttatta gctagtaata atatacttat tcaattttgt 180
gccc 184

<210> 159

<211> 534

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid t7-1-12 ; homology with SNF-1like kinase,
calcineurin B-like calcium sensors interacting
protein in Arabidopsis

<400> 159

ccagattaag cttcaggggg agaagaccgg gcgc当地 catttatccg ttgcaaccga 60
gatttacgag gtggcacctt cactatacat gttgcttcg caaggcttgg ggagataacct 120
tggaaatttca caagtttac aagaacctgt ctaccggatt gaaagacatt gttggcaac 180
tgggggaagg aggagaggaa gtaaaagatg gtctgtcgc agcttgattt tggagtgtga 240
agtca gtttggt ttgccaatgt gaataactct gcaaacatgt tgcttagat tagataatgc 300
tgtgctgtaa aaagaacttt ttataatcag ttgatgtcaa acagagtgtt taagcatcaa 360
cgagttata atacattgtt ttatgtacga ttaaggcacg taaacttaga aaaattaaga 420
ctggtttac attgcatttg ttgtcttatt tgggacaag atattacgga tcaatacccc 480
ccccaaaata tgtgctttta ttgaactgga agtggtaaca aagtgtgttata 534

<210> 160

<211> 398

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid t7-2-4 ; homology with a multi-functional
protein -beta oxidation

<220>

<221> misc_feature

<222> (36)..(354)

<223> n can be any nucleotide

<400> 160

cctcagaaac gcaatggagg tgtcatgttt tggggntgat acaattggat ctgaatacat 60
atactcaaag ctaaaaaactt ggcatgaggc cttatgtat ttttataagc catcaacatt 120
tttggagcag agagctgcaa aaggattgcc cttgggagga tcgtgtttag ctgc当地 180
tatgatcata tccttgaga agaaggcgtt attcaagcat gctgaacttg tgntcgaaa 240
taaggcgggn aagttgtta attacaatta gttagnagtt ccattaatta taataatttc 300
ctat ttttcc ccccaagtt atttgatgtt agttgtact ttggctctac aaantgtgt 360
aatcgtccga gaaagagaat gaaatgtcca aacgcttc 398

<210> 161

<211> 398

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid t7-4-7 ; homology with GST (bronze-2 protein homologue)

<400> 161

atggggttgc tagatatcat gtcatttac acactagggg catacaaagc acaagagcta 60
gtgtttggtg tgaaaatatt ggatgcagag aagacacccc tcttatactc atggttgact 120
agtttaattt agctgcctat agttaaggaa atcactcccc cttatgacaa ggtgccttca 180
tttcttcatt tcctcaaaga catcgcttc aaagctccgg ccaattgacc tttttgtgt 240
ttatgtccat ctctgtctt tttgtctact ccactcatta attgtactca atgtcttctc 300
ctctgtattt tataatataa taaggcttat ggccatttgg attccaaagg ctacttataat 360
ttttagtgtg tgtttataac aacagaaagt tatcatcc 398

<210> 162

<211> 397

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid t7-4-8

<220>

<221> misc_feature

<222> (207)..(351)

<223> n can be any nucleotide

<400> 162

ccatgagaat gacgaaagca aggccaaaaaa gaaaggagaa catgataaga agaatttgat 60
gaagaagggt gctggaaaaaa tagggaaaaaa attattgcat agtcatccta agaagcagca 120
tgaggaaggc tatgaaggag aagaggagga agaaggagaa gaaggagaag aagtagaagg 180
agaagaagta gaagtagaaag aagcggnaga aggtggttt gaatttgaac tcnacttga 240
ttttgatta agctttatgt atcactccag ctgtgtacgt tggattttct ccttattgg 300
ttaaaaanac ataagtatgt ttcgaggata tctctgaata ggtggcttgg natttgaac 360
ctgtgttacc atatatatga gcgtcttcta gttttt 397

<210> 163

<211> 304

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid t7-5-4

<400> 163

acgaatgtt ttagtactcg gggcaactcc aagtttgag atccaagtgt tgcagcctct 60
tttagcctta aaagggtggat gctgccattt taacctgggtt ttagtttga taaaatttga 120
attcaaagct tttgttgta gcttaggttc ctgtatttagt tttcagttga aatagttgt 180
tactctttca tctttgagca atgaaataaa agtcctcaaa tctgcttctt tttagaactaa 240
aaaagatctc ttatatttcc ccctgtaaaaa tcttgcaatt gattatcaac cgtccctctc 300
tattt 304

<210> 164

<211> 307

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid t7-5-5 ; Arabidopsis genomic homology

<400> 164
gagctgataa atggaaaagc agcagtaatt ggttccat tgctgttga ttttgaactc 60
ttgaccggta aaggcttct caaaggaaca gggttcttgg atttcattta ctcagttca 120
gatgcttca aataaaacca ttccgctata tacttactcc ccctccctt tttccccc 180
ttccatatttt tctgacaaat ttgcatttg ttaaataaaac aaaaacaaag aatgttgc 240
ttttatatgt ttgtccaatt atatggatta gtgaattata gaccattgaa ttccagctga 300
agaatgt 307

<210> 165
<211> 192
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t7-6-4

<400> 165
aacaataatt ggctataaca ttcaaaaata tttgaaacaa gcgatgccgt tacgttaggg 60
tttacggta aaagttagaag ctggtataag ccatcaatgg aaaaactggta taattcgatc 120
ttatataaat ttcctaattgt attgagacta atatataacag tcggattttt aggtttggc 180
cgaccggatt ac 192

<210> 166
<211> 232
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a1-1-17

<220>

<221> misc_feature

<222> (71)..(176)

<223> n can be any nucleotide

<400> 166
agagaaaagat ctgtacgtaa ttgccaaaaa cgatgagtgt ttggatgtca tgctttat 60
tggtgttat nggtgtctcc cttttgtatt tgaagtttc ccagaaaatt agcaaagaat 120
aagcttcaaa ctggtttac attttnggtt caaaatgtca natcaaanaa tctgtnatgc 180
tattgggtttt gtatgtataa attagatccc attttcttcc tctttccctt at 232

<210> 167
<211> 489
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t7-1-14

<400> 167
ccctcagaac gcaagtagca acagtttctt caattgctat tgccatatctc tgaactcgaa 60
ttcattactt gtaagatctg ctaataatca ctatttttt ctgcagtggaa ggtgtcatgt 120
tttgggctga tacaatttggaa tctgaataca tatactcaa gctaaaaact tggcatgagg 180
cctatggtga tttctataag ccatcaacat ttttggagca gagagctgca aaaggattgc 240
ccttggggagg atcgtgttga gctgcataatc atatgatcat atccctgcag aagaaggcagt 300
aattcaagca tgctgaacctt gtgctcgaa ataaggcgaa aaagtttggt aattacaattt 360
agttagaagt tccattaaattt ataataattt cctatttttt cccctcaagt tatttgatgg 420
tagttgtaac tttggctcta caaacttagtg taatcgtccg agaaagagaa tgaatgtcc 480

aacgccttc

489

<210> 168

<211> 877

<212> DNA

<213> Nicotiana tabacum

<220>

<221> CDS

<222> (31)..(588)

<400> 168

aacttcctct cttaaagttc atttactttg atg gag aat tat caa cat att ctt 54
Met Glu Asn Tyr Gln His Ile Leu
1 5

cca aat tac tct tca tcg tct gat cag ttg tca gta atg aat atg 102
Pro Asn Tyr Ser Ser Ser Ser Asp Gln Leu Ser Val Met Asn Met
10 15 20

atg aac aac aat tct caa gca aaa aca act gaa tta acc caa gac aat 150
Met Asn Asn Asn Ser Gln Ala Lys Thr Thr Glu Leu Thr Gln Asp Asn
25 30 35 40

aag aaa tcg agc ggg ttt ttg ggg cta atg gca agc atg gaa gct cct 198
Lys Lys Ser Ser Gly Phe Leu Gly Leu Met Ala Ser Met Glu Ala Pro
45 50 55

agc tcc agt gtt gtt act gat cac cca aat agc att ccg tat aac cct 246
Ser Ser Ser Val Val Thr Asp His Pro Asn Ser Ile Pro Tyr Asn Pro
60 65 70

aat gat cag aac gag gtg aga tcg ggt aag aag aat aaa gtt gag aag 294
Asn Asp Gln Asn Glu Val Arg Ser Gly Lys Lys Asn Lys Val Glu Lys
75 80 85

aag att aaa aaa ccg aga tat gct ttt caa aca agg agt caa gtg gat 342
Lys Ile Lys Lys Pro Arg Tyr Ala Phe Gln Thr Arg Ser Gln Val Asp
90 95 100

att ttg gat gat ggt tat aga tgg agg aaa tac gga cag aag gct gtc 390
Ile Leu Asp Asp Gly Tyr Arg Trp Arg Lys Tyr Gly Gln Lys Ala Val
105 110 115 120

aag aac aac aga ttc cca aga agc tac tac cga tgc acg cat caa gga 438
Lys Asn Asn Arg Phe Pro Arg Ser Tyr Tyr Arg Cys Thr His Gln Gly
125 130 135

tgt aac gtg aag aaa caa gta caa agg ctg tca aag gat gaa gga gta 486
Cys Asn Val Lys Lys Gln Val Gln Arg Leu Ser Lys Asp Glu Gly Val
140 145 150

gta gta act act tat gaa ggc atg cat tca cat ccc att gag aag tcc 534
Val Val Thr Thr Tyr Glu Gly Met His Ser His Pro Ile Glu Lys Ser
155 160 165

aca gat aac ttt gag cac att ttg act cag atg caa atc tat gct tcc 582
Thr Asp Asn Phe Glu His Ile Leu Thr Gln Met Gln Ile Tyr Ala Ser
170 175 180

ttt tga aacgtccatc acttcaatgc ctaaggcatg acactcaatt agtcacttgt 638
Phe
185

aaaatagtac tacagtatat tgtgtacatg cgtttgaac ctagatgcta tattttgaaa 698
taaaacgcaa cttcattagg gaatttaatt tgatcattgt acaactaaaa gtaatgtgc 758
tattttttg ttttatcac tttgttttg ccggagccat gctttcatt ttaactctt 818
tcttttagaa ttaacaata attcatgtt ggagaaagat acgtgccaaa aaaaaaaaaa 877

<210> 169
<211> 185
<212> PRT
<213> Nicotiana tabacum

<400> 169
Met Glu Asn Tyr Gln His Ile Leu Pro Asn Tyr Ser Ser Ser Ser
1 5 10 15
Asp Gln Leu Ser Val Met Asn Met Met Asn Asn Ser Gln Ala Lys
20 25 30
Thr Thr Glu Leu Thr Gln Asp Asn Lys Lys Ser Ser Gly Phe Leu Gly
35 40 45
Leu Met Ala Ser Met Glu Ala Pro Ser Ser Ser Val Val Thr Asp His
50 55 60
Pro Asn Ser Ile Pro Tyr Asn Pro Asn Asp Gln Asn Glu Val Arg Ser
65 70 75 80
Gly Lys Lys Asn Lys Val Glu Lys Lys Ile Lys Lys Pro Arg Tyr Ala
85 90 95
Phe Gln Thr Arg Ser Gln Val Asp Ile Leu Asp Asp Gly Tyr Arg Trp
100 105 110
Arg Lys Tyr Gly Gln Lys Ala Val Lys Asn Asn Arg Phe Pro Arg Ser
115 120 125
Tyr Tyr Arg Cys Thr His Gln Gly Cys Asn Val Lys Lys Gln Val Gln
130 135 140
Arg Leu Ser Lys Asp Glu Gly Val Val Val Thr Thr Tyr Glu Gly Met
145 150 155 160
His Ser His Pro Ile Glu Lys Ser Thr Asp Asn Phe Glu His Ile Leu
165 170 175
Thr Gln Met Gln Ile Tyr Ala Ser Phe
180 185

<210> 170
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer EVVRA
26

<400> 170
cgcgagact ctcgaggccc c

21

<210> 171
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer EVVRA
28

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<400> 171
ctcagatcta gaagttcatt tactttgatg 30

<210> 172
<211> 30
<212> DNA
<213> Artificial sequence

<220>
<223> Description of Artificial Sequence: primer EVVRA
29

<400> 172
attgaagatc tagacgttcc aactcgaggc 30

<210> 173
<211> 25
<212> DNA
<213> Artificial sequence

<220>
<223> Description of Artificial Sequence: primer EVVRA
30

<400> 173
ccctcgagcc accgtactcg tcaat 25

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